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MENTAL DISEASES

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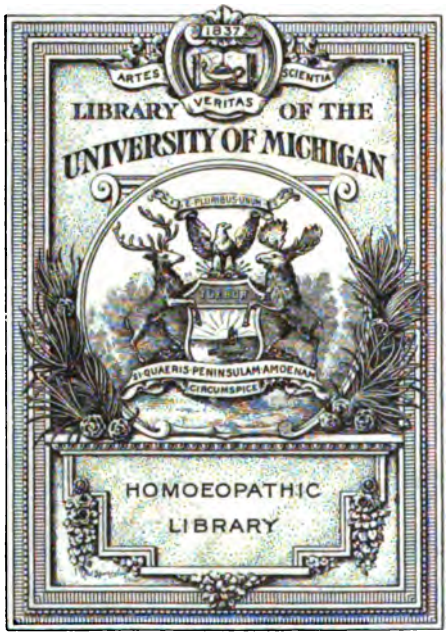

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MENTAL DISEASES

—— AND THEIR ——

HOMŒOPATHIC TREATMENT

FOR THE STUDENT AND PRACTITIONER OF MEDICINE

BY

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TO THE MIDDLETOWN STATE HOMOEOPATHIC HOSPITAL FOR THE INSANE, TO DR. MAURICE C. ASHLEY, ITS SUPERINTENDENT, AND HIS STAFF OF FAITHFUL SCIENTIFIC WORKERS, THIS BOOK IS RESPECTFULLY DEDICATED

PREFACE

The lack, in our school, of a work on Mental Diseases based upon the latest classification now adopted in nearly all of the best Hospitals for the Insane, is the excuse for presenting this book to the public.

While numerous classifications have been framed by different writers, no one has so completely filled the public need as that by Kraepelin, which we have followed for several years in our lectures to the students of the New York Homœopathic College and Flower Hospital.

For ease of reference, we have introduced marginal notes to the main text, thinking they would be appreciated as time-savers by the crowded student and busy practitioner.

Abstruse discussions of unproven theories of etiology and pathology have been carefully avoided. It has been the aim to present a clear word-picture of the mental diseases liable to be encountered in daily practice. The medical treatment given is purely Homœopathic, the indications for remedies being those which we have personally repeatedly verified during many years of practice in every form of mental disease.

All of the most valuable recent works have been drawn upon for the latest accepted views of Psychiatry,

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and we gratefully acknowledge our indebtedness to their authors. We are especially indebted to that renowned alienist, Kraepelin, and his translator, Defendorf, who has rendered such great public service by transmitting his ideas to the American profession.

We also desire to thank Dr. Maurice C. Ashley, Superintendent of the Middletown State Homœopathic Hospital for the Insane, for his great kindness in allowing us to secure photographs of the different varieties of mental disease at his institution, and to Drs. Woodman and Brewster, for their help in selecting the cases and securing the photographs. We are also indebted to these gentlemen for the different types of writing presented in the book. All of the illustrations are from original photographs, taken especially for this book, and never before published. Thanks are also hereby tendered to Dr. Amos J. Givens, of the Givens' Sanitarium, at Stamford, Connecticut, for samples of handwriting, and to Mrs. Elizabeth Spaulding for valuable aid in proof reading.

If this work shall aid the general practitioner and student in obtaining a fuller knowledge of this most difficult class of diseases, we shall feel that our labor has not been in vain.

WILLIAM MORRIS BUTLER, M. D.

May 9, 1910.
507 Clinton Avenue,
Brooklyn,
New York City.

ILLUSTRATIONS

FACING PAGE

Plate 1. Cretin With Marked Stigmata of Degeneration..... 24
Plate 2. Group Degenerate Males, Showing Cranial Anomalies.. . 25
Plate 3. Female Degenerate, Showing Facial Asymmetry and Anomalies of Ear 30
Plate 4. Bearded Woman 31

PAGE

Plate 5. Case of Puerperal Form of Exhaustive Psychosis 100
Plate 6. Dementia Praecox With Marked Mental Deterioration.... 210
Plate 7. Muscular Tension in Catatonic Stupor..... 216
Plate 8. Muscular Tension in Catatonic Stupor 222
Plate 9. Letter Written by a Case of Dementia Praecox..... 226
Plate 10. Case of Dementia Praecox With Marked Catatonic Tension 228
Plate 11. Group With Marked Catatonic Tension..... 234
Plate 12. Group of Female Paretics..... 250
Plate 13. Samples of Handwriting From Dictation of Three Cases of Dementia Paralytica 286
Plate 14. Paretic Writing 287
Plate 15. Female Involutional Melancholic 302
Plate 16. Involutional Melancholia Characteristic Facial Expression. 308
Plate 17. Depressed Type of Manic Depressive Insanity..... 322
Plate 18. Depressed Type of Manic Depressive Insanity Hypochondriacal 334
Plate 19. Depressed Type of Manic Depressive Insanity 346
Plate 20. Depressed Type of Manic Depressive Insanity..... 364
Plate 21. Manic Type of Manic Depressive Insanity 382
Plate 22. Paranoiac With Marked Delusions of Persecution 388
Plate 23. Catatonic Tension Case of Epileptic Insanity..... 406
Plate 24. Group of Demented Epileptics..... 420

CONTENTS

CHAPTER I

PAGE

Definition—Classification and Pathology of Insanity. Examination and Commitment of Insane. Definition—Brower—Bannister—Andrew Combe—Legal Insanity Defined—Classifications—Th. Ziehen—Agostini—Kraepelin—Pathology—Examination of the Insane—New York State Lunacy Law—Patients Who Should Be Committed 1

CHAPTER II

ETIOLOGY

Inherent Predisposition—Stigmata of Regeneration—Anatomical—Cranial Anomalies—Facial Asymmetry. Deformities of the Palate—Anomalies of the Teeth—Tongue and Lips—Eye—Ear—Limbs—Genitalia—Skin. Physiological Stigmata—Anomalies of Motor Function—Sensory Function—Speech—Genito-Urinary Functions—Instinct or Appetite. Psychic Stigmata—Changeableness—Mental Instability—Egotism—Absence of Moral Sense. Insane Diathesis—Causes—Heredity—Laws of Heredity—Prenatal Influence—Shock—Drunkenness—Diet During Pregnancy—Imperfect Nutrition—Traumatism—Overtaxation of the Undeveloped Physical Powers—Failure to Early Learn Self-control—Dissipation and Excessive Sexual Indulgence—Exciting Causes — Strains — Toxic Agents — Bodily Disease — Critical Periods—Shocks 24

CHAPTER III

SYMPTOMATOLOGY

Disorders of Sleep—Disorders of Nutrition—Secretions—Changes in the Arteries—Trophic Changes—Fragility of the Bones—Dermography—Pulse—Temperature—Sensory Symptoms—Delusions—Expansive—Depressive. Illusions—Sight—Hearing—Organic Sensations—Smell—Taste—Muscular Sense—Hallucinations—

PAGE

Hearing—Sight—Taste—Smell—Genital Sense—Feeling—Touch Impulse—Passionate, Simple—Stereotypy—Negativism—Disturbance of Power of Attention. Ideas—Imperative—Fixed—Autochthonous Disorders of the Will. Disorders in the Emotional Sphere. Disorders of Memory—Judgment—Reactions. Impulse—Passionate, Simple—Stereotypy—Negativism—Disturbances of Expression. Speech. Handwriting—Conduct..... 51

CHAPTER IV

INFECTION PSYCHOSES

Fever Delirium—Etiology—Pathological Anatomy—Symptomatology—Prognosis—Treatment. Infection Deliria, Typhoid—Small-pox—Malaria—Acute Chorea—Influenza, Hydrophobia. Treatment. Post-Infection Psychoses—Prognosis—Treatment. Korsakoff's Disease—Etiology. Pathology. Symptomatology. Prognosis—Diagnosis. Treatment 78

CHAPTER V

EXHAUSTION PSYCHOSES

Collapse Delirium—The Acute Delirium. Delirium Grave—Phrenomania, Bell's Disease, Etiology, Pathological Anatomy, Symptomatology, Prognosis, Treatment. Acute Confusional Insanity (Amentia)—Hallucinatory Insanity, Hallucinatory Confusion—Paranoia. Dissociative (Ziehen), Etiology, Symptomatology, Diagnosis. Treatment 98

CHAPTER VI

NEURASTHENIA

Etiology, Symptomatilogy, Pathogenesis, Differential Diagnosis, Course, Prognosis, Treatment 120

CHAPTER VII

INTOXICATION PSYCHOSES

Alcoholic Insanities—Acute—Chronic. General Symptoms of Alcoholism—Clinical Aspects of Alcoholism. Alcoholic Psychoses—

PAGE

Melancholia—Mania—Alcoholic Paranoia—Korsakoff's Psychosis—Alcoholic—Pseudo-Paresis. Alcoholic Progressive Dementia—Alcoholic Epileptic Insanity—Acute Alcoholic Insanity Clinical Form (Delirium Tremens)—Symptomatology—Pathology—Treatment—Alcoholic Melancholia—Symptomatology—Alcoholic Mania—Symptomatology. Prognosis—Pathology—Alcoholic Paranoia. Symptomatology. Prognosis—Treatment. Alcoholic Pseudo-Paresis—Symptomatology—Alcoholic Dementia — Symptomatology — Prognosis — Alcoholic Epilepsy — Symptomatology—Prognosis 163

CHAPTER VIII

INTOXICATION PSYCHOSES CONTINUED

Morphinism—Causes—Drug Symptoms—Deprivation—Symptoms—Prognosis—Diagnosis—Treatment. Cocainism—Symptoms—Prognosis—Diagnosis—Treatment. Mental Symptoms Produced by Bromides—Quinine—Iodoform—Lead—Chloral—Chloroform—Ether—Bellodonna—Salicylic Acid—Hyoscyamine—Carbon Dioxide—Antipyrine—Symptomatology—Diagnosis—Treatment 189

CHAPTER IX

DEMENTIA PRAECOX.

Etiology—Pathology—Symptomatology. Hebephrenia—Symptomatology—Prognosis. Catatonia—Symptomatology—Course—Prognosis. Paranoid Forms—Incoherent Type—Systematized Type — Symptomatology—Course—Diagnosis—Prognosis—Treatment. Ocular Signs and Symptoms Demonstrated by Drs. Tyson and Clark 209

CHAPTER X

DEMENTIA PARALYTICA

History—Synonyms—Definition—Etiology—Predisposing Causes—Exciting Causes. Prodromal State—Symptomatology. First Stage of the Established Disease—Symptomatology. Second Stage—Symptomatology. Third Stage—Symptomatology. Galloping

PAGE

Form—Circular Type. Depressed Form—Spinal General Paresis. Demented Form—Juvenal General Paresis. Remissions—Duration — Pathological Anatomy — Prognosis — Diagnosis — Treatment 248

CHAPTER XI

ORGANIC DEMENTIA

Syphilitic Dementia—Progressive—Dementia With Paralysis. Dementia Without Paralysis. Post-Apoplectic and Embolic Dementia. Thrombotic Dementia. Dementia From Disseminated Sclerosis. Dementia From Brain Tumors 292

CHAPTER XII

INVOLUTIONAL PSYCHOSES

Melancholia—Etiology—Pathological. Anatomy—Symptomatology—Course—Diagnosis—Treatment. Senile Dementia—Symptomatology—Pathological—Anatomy—Treatment 300

CHAPTER XIII

MANIC DEPRESSIVE INSANITY

Types—Manic—Depressed—Mixed. Definition—Etiology—Symptomatology. Manic Type Divided Into Hypomania—Mania—Delirious Mania. Hypomania—Symptomatology—Course. Mania—Symptomatology—Course. Delirious Mania—Symptomatology—Course—Treatment. Depressive States Divided Into Simple Retardation, Delusional Form, Stuporous Depression, Simple Retardation—Symptomatology—Course. Delusional Form—Symptomatology. Stuporous Depression—Symptomatology—Course—Treatment. Mixed Types Divided Into Irascible Mania, Depressive Excitement, Unproductive Mania, Manic Stupor, Depression With Flight of Ideas, Depression With Flight of Ideas and Emotional Elation. Irascible Mania—Symptomatology. Depressive Excitement—Symptomatology. Unproductive Mania—Symptomatology. Manic Stupor—Symptomatology. Depression With Flight of Ideas—Symptomatology. Depression With Flight of Ideas and Emotional Elation—Symptom-

PAGE

atology. Periodic Insanities Divided Into—Recurrent Mania, Recurrent Melancholia, Alternating Insanity, Circular Insanity, Irregular Forms. Recurrent Mania—Symptomatology. Recurrent Melancholia—Symptomatology. Circular Insanity—Symptomatology. Irregular Forms—Diagnosis—Treatment..... 320

CHAPTER XIV

PARANOIA.

Definition—Chronic Progressive Paranoia. Stages—Prodromal—Persecutory — Expansive. Pseudo-Demented — Symptomatology. Krafft-Ebing's Classification—Paranoia. Originaria—Paranoia Tardiva—Subdivided Into Paranoia Simplex, Paranoia Hallucinatoria, With Minor Varieties of Paranoia—Perecutoria—Religiosa—Erotica and Superba—Symptomatology—Querulous Insanity—Symptomatology—Pathology—Prognosis—Treatment .. 386

CHAPTER XV

EPILEPTIC INSANITY

Preparoxysmal Stage, Premonitory Stage, Paroxysmal Stage—Post-Paroxysmal Period, Inter-Paroxysmal State, Medico-Legal Relationships, Malingering, Prognosis—Treatment 404

CHAPTER XVI

TERMINAL DEMENTIA

Agitated Form—Symptomatology. Passive Form—Symptomatology—Treatment 431

CHAPTER XVII

GENERAL TREATMENT

Home Treatment—Method—Advantages. Cases Demanding Commitment. Rest Treatment. Tube Feeding Diet, Surgical Operations. Hydrotherapy—Hot Tub Bath, Hot Pack, Cold Pack, Douche Spray, Needle Baths 437

CHAPTER XVIII

MEDICAL TREATMENT

Depressed States—Remedies. Manic States—Remedies 459

MENTAL DISEASES

— AND THEIR —

HOMŒOPATHIC TREATMENT

CHAPTER I

DEFINITION, CLASSIFICATION, PATHOLOGY EXAMINATION, AND COMMITMENT OF INSANE

Difficulty in framing definition of Insanity

In commencing the consideration of any subject it is customary to define it, laying down its limits and concisely stating its special and essential features. That the framing of a rigid definition of insanity is a difficult if not impossible task, is demonstrated by the diverse definitions which have been presented by different writers upon the subject. Nor is this to be wondered at when we consider the variety of manifestations of mental aberration, the number of faculties involved, and the different degrees of deviation from the normal. The eminent English jurist, Lord Justice Blackburn, once said, while giving evidence before a commitee of the House of Commons: "I have read every definition which I

could meet with and never was satisfied with one of them, and have endeavored in vain to make one satisfactory to myself. I verily believe that it is not in human power to do it." While the framing of a rigidly correct medical definition may be impossible, yet a person appearing as a medical witness may be required to define insanity, and one of the following definitions will fairly meet the legal requirements: "Insanity is a more or less permanent disease or derangement of the brain, producing disordered action of the mind in such a way as to put the subject in a condition varying from his normal self and out of relation with his environment in such a way as to render him dangerous or inconvenient to himself or others" (Brower-Bannister). "Insanity is a prolonged departure, without an adequate external cause, from the states of feeling and modes of thinking usual to the individual when in health. This is the true feature of disorder in mind" (Andrew Combe).

Brower & Bannister's definition

Andrew Combe's definition

In a general way, insanity may be defined as a change from the individual's normal mental condition, as the result of disease of the brain or nervous system. Hence, it is apparent that what may be sanity in one person may be insanity in another. For instance, an uneducated, superstitious negro may express a belief in fetish worship or witchcraft and yet be perfectly sane, but

Medical Insanity prolonged disorder of the mind caused by disease

if a cultivated college professor should claim that a bit of skin or cloth was the dwelling place of an omnipotent spirit possessing power to harm his enemies or benefit his friends, one would immediately suspect that he was suffering from some form of insanity. Temporary disorder of the faculties may result from the inhibition of alcohol, opium, cocaine, or hashish, which will disappear as soon as the effect of the drug passes away. This would not be insanity, although the temporary symptoms might be the same. The chief characteristics of medical insanity may, therefore, be described as a prolonged disorder of the mind caused by disease.

The legal view of insanity differs somewhat from the medical.

Peterson's definition of Legal Insanity

Insanity in law is defined by Peterson (Church-Peterson, Nervous and Mental Diseases, p. 644) as follows:

1. "A criminal is insane if he does an act the nature and quality of which he does not know, or if, knowing the nature and quality of his act, he does not know whether it is right or wrong."

2. "A testator is insane if his mind, memory, or understanding is unsound."

3. "In a lunacy inquisition the subject of the inquiry is insane if he is incapable of managing himself and his affairs."

Characteristic of Legal Insanity, lack of responsibility

The characteristic of legal insanity is lack of responsibility.

CLASSIFICATION

A large number of classifications of insanity have been made, nearly every writer presenting a classification of his own. The following are some of the most prominent:

CLASSIFICATION OF TH. ZIEHEN.

Ziehen's classification

1. Psychoses without intelligence defect.
A. Simple psychoses: only one chief phase.
   1. Affective psychoses: chief symptoms in the emotional sphere.
      (a) Mania.
      (b) Melancholia.
      (c) Neurasthenia.
   2. Intellectual phychoses: chief symptoms in the region of the intellect.
      (a) Stupidity.
      (b) Paranoia.
         (a) Paranoia simplex.
         (b) Paranoia hallucinatonia.
         (c) Delirious (Ideen fleuchtige) form.
         (d) Stuporous form.
         (e) Incoherent form.
      (c) Insanity of fixed ideas.
B. Combined psychoses, with several phases.
   2. Defect psychoses.
A. Congenital mental weakness.
      (a) Idiocy.
      (b) Imbecility.
      (c) Debility.

B. Acquired mental weakness or dementia.
   (a) Dementia paralytica.
   (b) Senile dementia.
   (c) Secondary dementia after functional psychoses.
   (d) Secondary dementia with local brain disease (syphilis cerebriele).
   (e) Epileptic dementia.
   (f) Alcoholic dementia.

CLASSIFICATION OF AGOSTINI (1898)

Agostini's classification

Group I.

Mental disease in normally developed Individuals.	*a.* Functional disorders of general metabolism.	Mania.
		Melancholic Insanities.
		Confusional Insanities.
		Stuporous Insanities.
	b. Intoxications or acute infections.	Acute Delirium.
	c. Subacute or chronic intoxications from auto- or hetero-toxic agents, or by special poisons or drugs.	Paralytic Dementia.
		Pellagrous Insanity.
		Syphilitic Insanity.
		Myxedematous Insanity.
		Alcoholic Insanity.
		Saturnine Insanity.
		Carbonic Insanity.
		Morphinic Insanity.
		Cocainic Insanity.
	d. From Regressive or Degenerative Cerebral changes.	Senile Dementia.
		Secondary Dementia.
	e. From Diffuse or Local Cerebral Disease.	Hemiplegic Dementia.
		Dementia from Diffuse Sclerosis.
		Dementia from Cerebral Compression, etc.

Group II.

- **Arrests or Deviations of the Psychic Faculties in the Degenerate**
  - Precocious types.
    - Idiocy
    - Imbecility.
    - Endemic Cretinism.
    - Original Paranoia.
    - Reasoning Insanity.
    - Moral Insanity.
    - Episodic Paranoia.
  - Late types.
    - Paranoia Tardive
    - Periodic Insanity.
    - Catatonia.

Group III.

- **Psychoses connected with Neuropathic Constitution.**
  - Hysteric Insanity.
  - Epileptic Insanity.
  - Hypochondriac Insanity.
  - Neurasthenic Insanity.

KRAEPELIN'S CLASSIFICATION

Kraepelin's classification

- **Infection Psychoses.**
  - Fever Delirium.
  - Infection Delirium.
  - Psychoses Characteristic of the Post-Febrile Period of Infectious Disease.
- **Exhaustion Psychoses.**
  - Collapse Delirium.
  - Acute Confusional Insanity (Amentia).
- **Acquired Neurasthenia.**
  - Chronic Nervous Exhaustion.
- **Intoxication Psychoses.**
  - Acute Intoxication
  - Chronic Intoxication
    - Alcoholism.
      - Acute Alcoholic Intoxication.
      - Chronic Alcoholism.

Delirium Tremens
Alcoholic Delusional Insanity.
Alcoholic Paranoia.
Alcoholic Pseudoparesis.

- Morphinism
  - Acute Morphine Intoxication.
  - Chronic Morphine Intoxication.
- Cocainism.
  - Acute Cocaine Intoxication.
  - Chronic Cocain Intoxication.
  - Cocain Delusional Insanity.
- Thyroigenous Psychoses.
  - Mental Disturbance of Myxedena.
  - Cretinism.
- Dementia Præcox.
  - Hebephrenia.
  - Catatonic Form.
  - Paranoid Forms.
- Dementia Paralytica.
  - Demented Form.
  - Expansive Form.
  - Agitated Form.
  - Depressed Form.
- Organic Dementia.
  - Diffuse Lesions.
  - Localized Lesions.
- Involution Psychoses.
  - Melancholia.
  - Pre-senile Delusional Insanity.
  - Senile Dementia.
- Manic Depressive Insanity.
  - Maniacal States.
    - Hypomania.
    - Mania.
    - Delirious Mania.
  - Depressive States.
    - Simple Retardation.
    - Retardation with Delusions and Hallucinations.
    - Stuporous Conditions.
  - Mixed States.
    - Maniacal Stupor.
    - Stuporous Mania.

Paranoia.

- General Neuroses.
  - Epileptic Insanity.
  - Hysterical Insanity.

Traumatic Neuroses.

Constitutional Psychopathic States.	Congenital Neurasthenia. Compulsive Insanity. Impulsive Insanity. Contrary Sexual Instincts.
Defective Mental Development.	Imbecility. Idiocy.

The classification which we shall present is the following, which is a slight modification of Kraepelin's.

Author's classification, slight modification of Kraepelin's

CLASSIFICATION

Infection Psychoses.		Fever Delirium. Infection Delirium. Psychoses Characteristic of the Post-Febrile. Period of Infectious Diseases.
Exhaustion Psychoses.		Collapse Delirium. Acute Confusional Insanity (Amentia). Neurasthenia.
Intoxication Psychoses.		Ordinary Drunkenness. Acute Alcoholic Insanity (Delirium Tremens). Chronic Alcoholic Insanity.
	Alcoholic Psychoses.	Melancholia. Mania. Alcoholic Paranoia. Korsakow's Psychosis. Alcoholic Pseudo-paresis. Alcoholic Progressive Dementia. Alcoholic Epileptic Insanity.
Morphinism. Cocainism. Bromism. Iodoformism. Quinineism. Plumbism.		
Dementia Præcox.		Hebephrenia. Catatonic Form. Paranoid Forms.
Dementia Paralytica.		Demented Form. Expansive Form. Agitated Form. Depressed Form.
Organic Dementias.		Diffused Lesions. Localized Lesions.

- Involutional Psychoses.
  - Melancholia.
  - Senile Dementia.
- Manic Depressive Insanity.
  - Maniacal States.
    - Hypomania.
    - Mania.
    - Delirious Mania.
  - Depressive States.
    - Simple Depression.
    - Delusional Depression.
    - Depression with Stupor.
  - Mixed States.
- Paranoia.
- General Neuroses (Epileptic Insanity).
- Terminal Dementia.

PATHOLOGY

In defining insanity as a disease of the brain its pathology is expressed. In other words, insanity is a physical disease, and all mental aberrations are caused by some organic or functional disease of the brain or nervous system. Either the cells, fibers, or blood vessels of the brain have become diseased or some change has occurred in the quantity or quality of the blood by which it is nourished. Many of the disordered conditions of the brain are undoubtedly owing to changes in the blood itself, either through alterations of its physiological ingredients, or by the introduction of some toxic element from without, or within, the system.

Pathological Changes in Brain, Nervous System, Blood Vessels, or Blood Ingredients

Upon this theory of its physical basis is founded all modern and enlightened methods of treat-

Physical Disease Basis of Treatment

ment of insanity. To cure insanity one must restore all diseased conditions of brain and body; as only in a sound body can a sane mind exist.

Before entering upon a minute study of insanity, as a disease, let us consider the best method of examining a patient suspected of insanity.

EXAMINATION OF THE INSANE

Examination, Three Groups of Insane

The insane, presented for examination, may be divided into three groups: *the first*, where the mental condition is apparent to the unskilled observer; *the second*, where it is easily recognized by the ordinary practitioner; *the third*, where a diagnosis demands the highest skill of the experienced alienist.

Family History

In the examination of a patient it is well to follow some fixed line of inquiry. From some member of the family, as complete a history of the case as is possible should be obtained, embracing all facts calculated to throw any light upon the nature or cause of the disease. The pregnancy and parturition of the mother, the existence of mental, nervous, tuberculous, or cancerous disease in any of the ancestors, the habits of the parents, as regards alcoholism, or drugs, like

Patient's History

morphine or cocaine, the age at which the patient commenced to walk and speak, the disorders of infancy and childhood, the tendency toward

febrile disease, or convulsions, should be inquired into. As much knowledge as possible should be obtained as to the character, temperament, and habits of the patient, during childhood and at the period of puberty, the strength of the several instincts and sexual relations, as masturbation and excesses, illicit or in marriage, and as to present or previous venereal disease. Inquiries should also be made as to the habits of the patient, as regards alcohol, morphine, cocaine, or tobacco, or the occurrence of any shock, injury, severe illness, or previous attack of insanity. A minute history of the present attack should be obtained from the time the first change in the patient's disposition, habits, and manner was noticed. The history given must be carefully considered, that the patient's interests may not be prejudiced by the exaggeration or minimizing of the facts presented by friends desirous, from interested motives, to prove insanity or conceal it.

Personal Examination

The personal examination should embrace all the organs of the body, the heart, lungs, abdominal viscera, and pelvic organs, the condition of the reflexes and the sensations. The general appearance of the patient should be carefully noted, the expression of the face as indicative of exaltation, depression, or a dulling of the mental faculties. The shape and size of the head and the appearance of the eyes should be observed, and

search made for any of the stigmata of degeneration. Any tremulousness of the tongue or lips or disturbance of the speech, drawling, scanning or elision of syllables, should receive attention. Letters and handwriting should be studied, as these often reveal insanity concealed in conversation. The patient's manner of dressing, gait, general muscular movements, and the appearance of his apartments may also reveal much regarding his mental state.

Mental Examination

In the mental sphere, the attention, memory, judgment, and general mental action should be tested by careful questioning. The presence or absence of delusions, hallucinations, and illusions of sight, hearing, taste, smell, and touch should be ascertained. The knowledge of the patient as to his mental condition, his present location and surroundings, should also be the subject of inquiry.

Great Care Needed in Medico-Legal Cases

In many cases the mental state can be ascertained, almost by a glance; in others, a prolonged and careful study will be required, often necessitating repeated examinations. In medico-legal cases the greatest care is demanded from the frequent attempts of criminals to escape punishment by feigning insanity. The forms usually chosen are some type of mania, melancholia, dementia, or epilepsy, but the part assumed is usually overdone and can ordinarily be readily detected by

one versed in insanity. Before giving a decisive opinion, several examinations should be made, to avoid any possible mistake.

New York State Law as to Commitment of the Insane

We will now consider the requirements for a legal commitment to a hospital for the insane in the State of New York, as they are recorded in Chap. 545, Laws of 1896, Art. 3, Sections 60, 61, 62, 63, and 64. "A person alleged to be insane, and who is not in confinement on a criminal charge, may be committed to and confined in an institution for the custody and treatment of the insane upon an order made by a Judge of a Court of Record of the City or County, or a Justice of the Supreme Court of the judicial district, in which the alleged insane person resides, or may be, adjudging such person to be insane, upon a certificate of lunacy made by two qualified medical examiners in lunacy, accompanied by a verified petition therefor, or upon such certificate and petition, and after hearing to determine such question as provided in this article. The commission shall prescribe and furnish blanks for such certificates and petitions, which shall be made only upon such blanks. An insane person shall be committed only to a State hospital, a duly licensed institution for the insane, or the Matteawan State Hospital, or to the care and custody of a relative or committee as hereafter provided. No idiot shall be committed to or con-

fined in a State hospital. But any epileptic or feeble-minded person becoming insane may be committed as an insane person to a State hospital for custody and treatment therein.

Examination by Two Physicians Three Years in Practice Qualified by Commission of Lunacy

"The certificate of lunacy must show that such person is insane and must be made by two reputable physicians, graduates of an incorporated medical College, who have been in the actual practice of their profession at least three years, and have filed with the Commissioner a certified copy of the certificate of a Judge of a Court of record showing such qualifications in accordance with forms prescribed by the Commissioner. Such physicians shall jointly make a final examination of the person alleged to be insane within ten days next before granting of the order. The date of the certificate of lunacy shall be the date of such joint examination. Such certificate of lunacy shall be in the form prescribed by the Commissioner and shall contain the facts and circumstances upon which the judgment of the physicians is based, and show that the condition of the person examined is such as to require care and treatment in an institution for the care, custody and treatment of the insane.

Physicians must not be connected with institution to which it is proposed to commit patient

"Neither such persons shall be a relative of the person applying for the order of the person alleged to be insane, or a manager, superintendent, proprietor, officer, stockholder, or have any

pecuniary interest directly or indirectly, or be an attending physician in the institution to which it is proposed to commit such person.

"Any person with whom an alleged insane person may reside or at whose house he may be, or the father or mother, husband or wife, brother or sister, or the child of any such person, and any overseer of the poor of the town, and superintendent of the poor of the County in which any such person may be , may apply for such order, by presenting a verified petition containing a statement of the facts upon which the allegation of insanity is based and because of which the application for the order is made. Such petition shall be accompanied by the certificate of lunacy of the medical examiners as prescribed in the preceding section. Notice of such application shall be served personally at least one day before making such application, upon the person alleged to be insane, and if made by an overseer or superintendent of the poor, also upon the husband or wife, father or mother, or next of kin of such alleged insane person, if there be any such known to be residing within the County, and if not, upon the person with whom such alleged insane person may reside, or at whose house he may be. The judge to whom the application is to be made may dispense with such personal service or may direct substituted service to be made upon some person

Petition

Personal Service on Patient Before Examination

Judge may Dispense with Personal Service

to be designated by him. He shall state in a certificate to be attached to the petition his reason for dispensing with personal service of such notice, and if substituted service is directed the name of the person to be served therewith.

"The Judge to whom such application is made may, if no demand is made for a hearing in behalf of the alleged insane person, proceed forthwith to determine the question of insanity, and if satisfied that the alleged person is insane may immediately issue an order for the commitment of such person to an institution for the custody and treatment of the insane. If, however, it appears that such insane person is harmless and his relatives or a committee of his person are willing and able to properly care for him, at some place other than such institution, upon their written consent the Judge may order that he be placed in the care and custody of such relatives or such committee. Such Judge may, in his discretion, require other proofs in addition to the petition and certificate of the medical examiners.

Harmless Insane may be cared for Out of an Institution

"Upon the demand of any relative or near friend in behalf of such alleged insane person, the Judge shall or he may upon his own motion, issue an order directing the hearing of such application before him at a time not more than five days from the date of such order, which shall be served upon the parties interested in the application

Hearing before a Judge

and upon such other persons as the Judge in his discretion may name. Upon such day, or upon such other day, to which the proceeding shall be regularly adjourned, he shall hear the testimony introduced by the parties and examine the alleged insane person if deemed advisable, in or out of court, and render a decision in writing as to such person's insanity. If it be determined that such person is insane, the Judge shall forthwith issue his order committing him to an institution for the custody and treatment of the insane, or make such other order as is provided in this section. If such Judge cannot hear the application he may in his own order directing the hearing, name some referee, who shall hear the testimony and report the same forthwith, with his opinion thereon, to such Judge who shall, if satisfied with such report, render his decision accordingly. If the commitment be made to a State Hospital the order shall be accompanied by a written statement of the Judge as to the financial condition of the insane person, and of the persons legally liable for his maintenance as far as can be ascertained. The superintendent of such State Hospital shall be immediately notified of such commitment, and he shall, at once, make provisions for the transfer of such insane person to such hospital.

Hearing by Referee

"The petition of the applicant, the certificate in lunacy of the medical examiners, the order

directing a further hearing as provided in this section, if one be issued, and the decision of the judge or referee, and the order of commitment shall be presented at the time of the commitment to the superintendent or person in charge of the institution to which the insane person is committed, and verbatim copies shall be forwarded by such superintendent or person in charge and filed in the office of the State Commissioner in lunacy. The relative, or committee, to whose care and custody any insane person is committed shall forthwith file the petition certificate and order, in the office of the clerk of the County where such order is made, and transmit a certified copy of such papers to the Commissioner in lunacy and procure and retain another such certified copy.

Superintendent may Refuse Patient

"The superintendent or person in charge of any institution for the care and treatment of the insane may refuse to receive any person upon any such order, if the papers required to be presented shall not comply with the provisions of this section, or if, in his judgment, such person is not insane within the meaning of this statute, or, if received, such person may be discharged by the commission. No person shall be admitted to any such institution under such order after the expiration of five days from and inclusive of the date thereof.

"If a person ordered to be committed, pursuant to this chapter, or any friend, in his behalf, is dissatisfied with the final order of a Judge or Justice committing him, he may, within ten days after the making of such order, appeal therefrom to a Justice of the Supreme Court other than the Justice making the order, who shall cause a jury to be summoned as in case of proceedings for the appointment of a committee for an insane person, and shall try the question of such insanity in the same manner as in proceedings for the appointment of a committee. Before such appeal shall be heard, such person shall make a deposit or give a bond, to be approved by a Justice of the Supreme Court, for the payment of the costs of appeal, if the order of commitment is sustained. If the verdict of the jury be that such person is insane, the justice shall certify that fact and make an order of commitment as upon the original hearing. Such order shall be presented, at the time of the commitment of such insane person, to the superintendent or person in charge of the institution to which the insane person is committed, and a copy thereof shall be forwarded to the commission by such superintendent or person in charge and filed in the office thereof. Proceedings under the order shall not be stayed pending an appeal therefrom, except upon an order of a Justice of the Supreme Court, and made upon a notice and

Appeal to Justice of the Supreme Court and Trial by Jury

Bond for Costs of Appeal

Method and Conditions of Appeal

after a hearing, with provisions made therein for such temporary care and treatment of the alleged insane person as may be deemed necessary.

"If a Judge shall refuse to grant an application for an order of commitment of an insane person, proved to be dangerous to himself or others, if at large, he shall state his reasons for such refusal in writing, and any person aggrieved thereby may appeal therefrom in the same manner and under the same conditions as from an order of commitment.

"The costs necessarily incurred in determining the question of the insanity of a poor or indigent person and in securing his admission into a State hospital and the expense of providing proper clothing for such person, in accordance with the rules and regulations adopted by the Commission, shall be a charge upon the town, city or county securing the commitment. Such costs shall include the fees allowed by the Judge or Justice ordering the commitment to the medical examiners. If the person sought to be committed is not a poor or indigent person, the costs of the proceedings to determine his insanity and to secure his commitment, as provided in this article, shall be a charge upon his estate, or shall be paid by the persons legally liable for his maintenance. If in such proceedings, the alleged insane person is determined not to be insane, the Judge or Jus-

Costs Charge upon Town City or County Securing the Commitment

tice may, in his discretion, charge the costs of the proceedings to the person making the application for an order of commitment, and judgment may be entered for the amount thereof and enforced by execution against such person."

We see from the foregoing that a commitment to be legal must meet the following requirements of law:

Requirements of Legal Commitment

1. A petition.
2. Personal service.
3. Examination by two qualified examiners in lunacy.
4. Judical order of commitment by a Judge of a Court of Record.
5. Statement of financial condition of a patient.

Blank forms of commitment may be obtained from the hospital to which the patient is to be sent, or from the office of the Commission in Lunacy, or from the office of the Commissioner of Charities.

All town, city, or county authorities before sending a patient to a hospital must see that said patient is in a state of bodily cleanliness, and provided with new clothing throughout, including shoes and hat. Between the months of November and April, both inclusive, there shall be provided, in addition to the foregoing, a suitable shawl or cloak for female patients and a suitable

overcoat for male patients, also gloves or mittens.

When should a Patient be Committed to an Insane Hospital?

The last subject which we shall discuss in this connection is the question, When should we commit a patient to an insane hospital?

In determining this question we shall consider:

1. The financial condition of the patient.
2. The form of the disease.
3. The age of the patient.
4. The patient's physical condition.

When the family is sufficiently wealthy to secure skilled medical service and to surround the patient with enough trained nurses to prevent his harming himself or others, any case, whatever the type of the disease, may be treated at home. When, however, this cannot be done, he should invariably be sent to a hospital.

Usually suicidal cases and always cases of homicidal mania, paranoia, and paresis should be committed. It is always unwise to treat suicidal patients at home, as the opportuities for the accomplishment of their one purpose in life are too great for the physician to take the responsibility. Paranoiacs are the most dangerous of all the insane and should invariably be under restraint.

In the first stages, if closely watched, the paretic may remain at home, but in the later stages he will be much better off in any well-equipped insane hospital.

Children and aged people should, if possible, be kept at home. Young men and women should also be given the benefit of home treatment, if it can be accomplished, as you will thus prevent the stigma of a confinement in an asylum from blackening their future life when they have recovered.

Any patient suffering from any form of insanity which produces great physical weakness, like any of the exhaustive psychoses, should never be sent to an institution until the physical powers are sufficiently restored for the patient to bear the journey with safety. Many cases of this class which might recover at home, under proper care, die from the exhaustion caused by their transportation to the hospital.

Imbeciles and harmless cases of dementia also should be kept at home.

CHAPTER II.

ETIOLOGY.

Inherent Predisposition

Whatever the immediate exciting cause may be, the predominant factor in the production of insanity is an inherent predisposition. Hence exciting causes ineffective in sound individuals, may in those cases, from their excessive vulnerability, prove disastrous.

Stigmata of Degeneration

What are the bodily and mental marks of this insane diathesis? Much study has been given of late years to these degenerates, and as a result many characteristic *anatomical*, *physiological*, and *psychical* stigmata have been revealed. Among the most common and important anatomical stigmata are certain

CRANIAL ANOMALIES

Cranial Anomalies

Aside from the deformities of the head, which are congenital, others are produced in early life by rachitis and hydrocephalus, in later life by tumors and exostoses; while, at all periods, the shape of the skull is menaced by external injuries.

The following are some of the commoner designations of well-known cranial deformities:

CRETIN WITH MARKED STIGMATA OF DEGENERATION

GROUP OF DEGENERATE MALES SHOWING CRANIAL ANOMALIES

CHEMOCEPHALUS OR FLATHEADEDNESS *Chemocephalus*

This is characteized by a flatness of the top of the head.

LIPTOCEPHALUS OR NARROWHEADEDNESS *Liptocephalus*

This is caused by an early synostosis of the frontal and sphenoid bones.

MACROCEPHALUS *Macrocephalus*

Macrocephalus is a large head usually attributable to hydrocephalus.

MICROCEPHALUS *Microcephalus*

Microcephalus is a small head due to congenital atrophy of the brain, or, rarely, to premature synostosis of sutures.

OXYCEPHALUS OR STEEPLE-SHAPED SKULL *Oxycephalus*

This is produced by synostosis of the parietal with occipital and temporal bones with compensatory development in the region of the bregma.

PLAGIOCEPHALUS OR OBLIQUE DEFORMITY OF THE HEAD *Plagiocephalus*

This is due to unilateral synostosis of the frontal bone with one of the parietal bones.

SCAPHOCEPHALUS, WHERE THE TOP OF THE HEAD IS KEEL-SHAPED *Scaphocephalus*

This is caused either by too early union of the sagittal suture or by the development of both parietal bones from one center.

Trigonocephalus

TRIGONOCEPHALUS

The trigonocephalus, characterized by a very narrow forehead and great width behind, is caused by a premature union of the frontal suture.

Dolichocephalus

DOLICHOCEPHALUS SKULL

The dolichocephalus skull is of unusual length.

Brachycephalus

BRACHYCEPHALIC SKULL

The brachycephalic skull is characterized by its unusual breadth.

The cranial deformities can be summed up as flat heads, abnormally large heads, small heads, steeple-shaped, oblique, keel-shaped, heads with narrow foreheads and great width behind, long heads and broad heads.

Facial Asymmetry

FACIAL ASYMMETRY

Other physical stigmata appear in the shape of the face, the jaws being too projecting, too straight, or too receding. Inequality of the two sides of the face may also occur, with too great or unequal prominence of the malar bones and asymmetry of the orbits.

Malformed Jaws

Stigmata of the nasal bones are also frequently encountered, such as deformities of the nasal septum, deflection, hypertrophy, and atrophy of the turbinate bones, deformities of the maxillary

sinus, hypertrophy of the mucous membrane and polypi. "Deflection of the external nose is a very common stigma of degeneracy. Not only is the septum involved, but also the outer plates of the nasal cavity. So unstable are the bones of the face in their development, that it is not an uncommon thing for the nasal process of the upper jaw on one side to be much more developed than the other. Not only is the nasal septum involved, but also the bones of the face as well, producing a fullness on the long side of the face. Deflection of the septum to the left may entirely obliterate the left nasal cavity. In some cases the nose is deflected to the right or left side. In some degenerates the face looks as though the two halves were made separately and joined together, one half higher than the other." (Talbot)

Nasal Deformities

Deformities of the Face

Among the most important of the stigmata of degeneration are:

DEFORMITIES OF THE PALATE

Deformities of the Palate

Seven varieties of the pathological palates have been discovered. These are:

1. Palate with Gothic arch. *Gothic arch*
2. Palate with horseshoe arch. *Horseshoe*
3. The dome-shaped palate. *Dome-shape*
4. The flat-roofed palate. *Flat-roofed*
5. The hip-roofed palate. *Hip-roofed*

Asymmetrical Torus palalinus

6. The asymmetrical palate.
7. The torus palatinus.

"The seven varieties named are to be regarded merely as types. Each type will be found to present variations and combinations with other forms. Thus the Gothic arch may have a low or high pitch and be short or long. The dome-shaped palate may be high or low, may be combined with asymmetry or torus. The presence of a torus in the Gothic variety is liable to destroy the purely Gothic form, and may cause it to resemble the flat-roofed palate. Under the heading of flat-roofed palate are included all such palates as are nearly horizontal in outline, as well as those with inclined roof sides but flattened gable.

In the hip-roofed palate we have the sloping sides as usual, but also a marked pitch of the palate roof in front and behind; occasionally, one may meet with a palate of this kind with so remarkable a pitch from before backward that it is almost like a Gothic roof turned about, so that the gable runs transversely.

The torus palatinus is a projecting ridge or swelling along the palatine suture, sometimes in its whole length, sometimes in only a portion of its course. It varies considerably in its course and shape. It may be wedge-shaped, narrow, broad, very prominent or irregular." (Peterson.)

DENTAL ANOMALIES

Dental Anomalies

Macrodontism, microdontism, protruding, misshapened, misplaced and striated teeth are found among the dental anomalies.

ANOMALIES OF THE TONGUE AND LIPS

Anomalies of Tongue and Lips

The tongue may be too large, or too small, or present asymmetry of the two halves or bifidity of the point. Undue swelling and puffiness of the lips is also noteworthy.

ANOMALIES OF THE EYE

Anomalies of the Eye

The eye stigmata are exceedingly important. Peterson has grouped them into two classes, as follows:

ANATOMICAL	PHYSIOLOGICAL
Flecks on the iris.	Blindness.
Chromatic asymmetry of the iris.	Myopia.
Narrow palpebral fissures.	Hypermetropia.
Albinism.	Astigmatism.
Congenital cataracts.	Daltonism.
Pigmentary retinitis.	Hemeralopia.
Microphthalmos.	Concentric limitation of the visual field.
	Nystagmus.
	Muscular insufficiency.

While one or two of these conditions may not constitute positive proof of degeneracy, still they are significant in connection with other abnormal states. No examination of a suspected degener-

are should be considered complete until the eye has been carefully examined.

Anomalies of the Ear

ANOMALIES OF THE EAR

No deformities have been more carefully studied, and none take higher rank as stigmata of degeneration, than those that pertain to the ear.

Especial study of this subject has been made by Morel, Stahl, Wildermuth, Binder, and Schwalbe, and we chiefly are indebted to them for the best description of these conditions. These deformities are numerous and of various kinds. Not only the form and structure of the ears, but their mode of implantation may differ so radically from the normal as to enable the observer, at a glance, to recognize that the possessor belongs to this class of human unfortunates.

Twenty-two varieties of deformities have been discovered.

The ears may be abnormally implanted. They may project too far or lie too closely, be placed too high or too low, stand too far forward or lie too far backward on the head. The ears may be excessively large, or too small, or of ugly shape. abnormally long, or unusually short. Great variations in the lobule may occur, the lobule may be enlarged, adherent, or missing. One ear may

FEMALE DEGENERATE SHOWING FACIAL ASYMMETRY
AND ANOMALIES OF THE EAR

BEARDED WOMAN

PHOTO LOANED BY DR. WOODMAN.

differ in shape from its fellow or be placed at a different angle upon the head, and so on to the end of the chapter.

Whatever the variety of the malformation, it distinctly brands its possessor, revealing the lowered quality of his brain, and is positive proof of his dangerous inheritance, which is a constant menace to his mental life.

ANOMALIES OF THE LIMBS

Anomalies of the Limbs

Other inherited anomalies may appear, as supernumary fingers or toes, or missing fingers or toes, or anomalous brevity of the digits, as compared with the relative portions of normal digits, fusion of the fingers or toes, fusion of the extremities, excessive length of the arms, as compared with the legs or the rest of the body, or absence of parts of the limbs, producing excessive shortening or excessive volume of the limbs or digits. These anomalies occur less frequently than many previously mentioned, but, when present, are essentially degenerative indices. In the same category may be classed dwarfism or giantism, infantile characteristics in an adult, masculine peculiarities in females, and feminine traits in males.

ANOMALIES OF THE GENITALIA

Anomalies of the Genitalia

Frequent degenerative stigmata may appear in both the male and female genitalia, manifested in

excessive or diminished growth and various malformations.

Anomalies of the Skin

ANOMALIES OF THE SKIN

The degenerate may also present numerous abnormalities of the skin and hairy system. This is often seen in the excessive growth of hair on the chin and breast in women, or in complete or partial discoloration of the hair. More or less marked cases of this kind can be seen in any insane hospital, while numerous exaggerated examples are presented to the public by enterprising showmen, as Albinos and bearded women.

Bearded Women

Anomalies of Appetite

ANOMALIES OF APPETITE

Among all degenerates anomalies of appetite are found, rendering them especially liable to the formation of the drink or drug habit, or of both habits; and, when these habits are formed, reformation is practically impossible.

Degenerates Liable to Form Drink or Drug Habit

One of these unfortunates whom I had under my care a short time since, beside being a drunkard, had, at different times, taken in excess morphine, cocaine, and hydrate of chloral. Another degenerate, in whose trial for the murder of his wife I was called, and who is now serving a life sentence, beside being one of the worst cigarette fiends, took morphine, cocaine, and

nitro-glycerine, and, while under the influence of some or all of these poisons, committed the crime for which he is now undergoing punishment.

The following are the most important of the physiological stigmata as given by Peterson (Church and Peterson, "Nervous and Mental Diseases," p. 692).

PHYSIOLOGICAL STIGMATA

ANOMALIES OF MOTOR FUNCTION

Anomalies of Motor Function

Retardation of learning to walk.
Tics.
Tremors.
Epilepsy.
Nystagmus.

ANOMALIES OF SENSORY FUNCTION

Anomalies of Sensory Function

Deaf-mutism.
Neuralgia.
Migraine.
Hyperesthesia.
Anesthesia.
Blindness.
Myopia.
Hypermetropia.
Astigmatism.
Daltonism.
Hemeralopia.
Concentric limitation of the visual field.

Anomalies of Speech

ANOMALIES OF SPEECH

Mutism.
Defective speech.
Stammering.
Stuttering.

Genito-Urinary Anomalies

ANOMALIES OF GENITO-URINARY FUNCTION

Sexual irritability.
Impotence.
Sterility.
Urinary incontinence.

Anomalies of Instinct or Appetite

ANOMALIES OF INSTINCT OR APPETITE

Uncontrollable appetite (food, liquor, drugs).
Merycism.

Diminished Resistance to Disease

Diminished resistance against external influences and diseases.
Retardation of puberty.

PSYCHIC STIGMATA

With the bodily traits which we have just been considering, a person with a strongly marked insane neurosis presents certain peculiarities of thought, feeling, and conduct. Without being insane, he is likely to be regarded as strange, queer, and unlike other persons. He is inclined to look at things differently from other people and think about them under novel relations. Many men of genius have possessed these peculiar stigmata,

Men of Genius

among whom may be named Chatterton, De Quincey, Cowper, Turner, Shelley, Tasso, Lamb, and Goldsmith. In some musical and mathematical prodigies, like the negro, Blind Tom, and the "lightning calculator," Zerah Colburn, these stigmata have appeared in exaggerated form; for while one possessed marvelous musical, and the other wonderful mathematical, talent, neither of them was capable of improvement by ordinary educational methods and outside of his individual talent was little above imbeciles in regard to the ordinary affairs of life.

Changeableness

A marked characteristic of neurotics is their changeableness and lack of mental poise. Either unduly elated or depressed, they are inclined to do things differently from the rest of the world. Exceedingly emotional and excitable, they are easily upset by any great moral shock, or by the strain of continued anxiety. Governed by impulse rather than by judgment, they are inclined to whimsical and purposeless acts. Lacking in self-control, they are often subject to violent fits of passion.

Hyperesthetic Mental Disturbance from Slight Physical Disorders

Hyperesthetic and exceedingly sensitive to pain, they are subject to mental disturbances from slight physical disorders. Hence any great physical change in the system, such as is caused by the advent of puberty, by the puerperal state, or the menopause, is liable to disturb their mental stability.

Egotism

Another characteristic frequently observed is an overweening egotism. Considering themselves very superior to their associates, they look upon themselves as the great center about which everything and everybody revolves. Exceedingly jealous, they are always misinterpreting the motives of their companions and detecting maliciousness in the most innocent actions. Ever dwelling upon imaginary slights, it is but a short step from their ordinary mental state to paranoia with its complicated net of plots and conspiracies. Driven by their imaginings into a life of solitude and self-brooding, they easily create an impassable gulf between themselves and the rest of the world.

Lack of Moral Sense

Another group of neurotics seem to be born with an entire absence of moral sense. While this is usually conjoined with general mental weakness, it may occur in persons with acute intellects. No class of cases cause more trouble. Occurring as they frequently do in the best families, it is often difficult to decide what is best to do with them. Exceedingly cunning and crafty, utterly oblivious of the rights of others, they cause no end of trouble in the families to which they belong. Crimes of every character may be committed by them, altogether motiveless, which, from the nature of their surroundings, you are forced to ascribe to mental

weakness; yet you may be unable to commit the patient to any insane hospital, or, if you are able to do so, he is often returned to you and immediately recommences his old life. Of this class are many of the inmates of our prisons and reformatories.

Criminals Prone to Mental Disease

"Mr. Thompson, formerly surgeon to the General Prison of Scotland, has gone so far as to express his conviction that the principal business of prison surgeons must always be with mental defects or disease; that the diseases and causes of death among prisoners are chiefly of the nervous system, and, in fine, that the treatment of crime is a branch of psychology. He holds that there is among criminals a distinct and incurable criminal class, marked by peculiar low physical and mental characteristics; that crime is hereditary in the families of criminals belonging to this class; and that this hereditary crime is a disorder of mind having close relations of nature and descent to epilepsy, dipsomania, insanity, and other forms of degeneracy. Such criminals are really morbid varieties and often exhibit marks of physical degeneration, spinal deformities, stammering, imperfect organs of speech, club foot, cleft palate, hare lip, deafness, epilepsy, and scrofula."

Causes of Insane Diathesis

Having studied the general physical and psychical characteristics of the insane diathesis, the primal cause of insanity, let us consider what are

its causes. What are the influences likely to produce this weakness of the brain structure, rendering it liable to fall at the first wind of adversity?

Heredity

First and foremost among the causes should be placed heredity, including prenatal influences—the diet of the mother and drugs taken during pregnancy and the shocks to which she has been subjected during this period.

In determining the full extent of this influence we must not be content with simply ascertaining the existence or non-existence of psychoses in the ancestors. A careful search must be made for any of the hereditary equivalents: epilepsy, chorea, hysteria, neurasthenia, somnambulism, migraine and organic diseases of the central nervous system, criminal tendencies, eccentricities of character, drunkenness; as any of these, appearing in the ancestor, may produce an unstable nervous system in the descendant. All statistics on this subject are only approximately correct, for it is exceedingly difficult always to obtain the truth as to the existence of any family weakness. Much attention has been given to the subject of heredity, but no one has more closely studied its problems or better formulated its laws in relation to insanity than Mercier in his "Sanity and Insanity." He asserts "that, besides the importance of direct transmission of an unstable nervous system, there is another law of heredity which

Law of Sanguinity

is known as the law of sanguinity. Two parents may be perfectly stable and have normal organisms, and yet produce offspring with unstable and abnormal nervous constitutions, because of the unsuitability of the sexual elements of the parents to each other. The perfect organization of the progeny is the result of three factors—the quality of the germ (which brings matter), the quality of the sperm (which brings force), and the suitability of the one to the other.

Perfect Organization of Progeny, Quality of the Germ, Quality of the Sperm, Suitability of the One to the Other

"The laws of heredity as they relate to insanity may be briefly summarized as follows:

1. The child tends to inherit every attribute of both parents.

2. Contradictory attributes can not be inherited from both parents.

3. The child may inherit the attributes of either parent solely.

4. It may inherit the qualities of one parent in some respects and of the other in other respects.

5. It may inherit the father's attributes for one period of existence and the mother's for another.

6. Some attributes have the quality of prepotency or the tendency to push aside or overrule other attributes.

Laws of Heredity

7. Attributes which are similar in both parents tend to become prepotent, giving rise to convergent or cumulative heredity.

8. Attributes may be transmitted in latent form from one generation to another, to reappear in a third or fourth or still more remote generation—a phenomenon termed 'reversion.'

9. Attributes tend to appear in the progeny about the same time of life at which they became manifest in the parents.

10. Attributes of the father tend to be inherited by the sons and of the mother by the daughters.

"A study of these laws will furnish an explanation of many puzzles of psychopathic heredity; why, for instance, one child of a neurotic parent may be affected and another escape, and again why mental weakness appears in the progeny of healthy parents. There is also a variation in the degree of hereditary taint originated by the several heritable equivalents. The heritage of epilepsy, chronic alcoholism, and paranoia, for instance, is much more serious than that of simple neurasthenia, eccentricity of character, and puerperal psychosis. The greater the number of members and branches of a family afflicted, the stronger the taint; when the degree of hereditary taint is marked the psychosis which may develop tends to be modified from the ordinary types of such psychoses and this deviation is termed hereditary degenerative modification or, in short, hereditary degeneracy—while the in-

sanity evolved is designated a degenerative psychosis. The particular degenerative psychoses are such forms as idiocy, imbecility, feeble-mindedness, periodical and circular insanity, hysterical insanity, acute simple paranoia, polymorphic insanity, etc. A polymorphic course is particularly characteristic of psychic degeneracy, so that sometimes a perfect chain of psychopathic conditions and psychoses will be manifested throughout the life of the degenerate." (Peterson.)

Weak-minded Sons of Eminent Men

We find here also the explanation for the existence of so many weak-minded sons of eminent men. The fathers, having exhausted their force in their great mental efforts, have little left to contribute to the children whom they create.

Prenatal Influence

Another potent factor of heredity in this connection is that of prenatal influence. Although the fact of maternal impressions has been disputed by some, its influence has been markedly shown by too many undeniable instances to remain in doubt. Spitzka, who approached maternal impressions from an actively sceptical standpoint, had his skepticism shaken by specimens (preserved in the British Museum) of newly-hatched chicks, all of which had a curved beak like a parrot and the toes set back as in that bird. According to the report of the curator, the hens in the farmyard where these monstrosi-

ties were hatched, had been frightened by a parrot, which, having escaped, fluttered among them some time before the eggs were laid and greatly frightened those from which the malformed chicks were received. Since then, so many instances have come into this author's experience that he has become a thorough believer in the marked influence of maternal impressions. He asserts that he has never seen an idiotic or malformed child or one afflicted with morbid impulses derived from healthy parents, free from hereditary taint, in which a maternal impression could not be traced.

One of the most remarkable illustrations of prenatal influence appeared in a young lady who was a patient in the Middletown Hospital while I was connected with that institution. This lady, an imbecile, was the daughter of a man who died, leaving his family twenty millions of dollars, which he had gained in the maelstrom of Wall Street. Weakminded from birth, utterly ignorant of Wall Street and its methods, this girl would sit by the hour and write orders for stock. This father's mind was so full of Wall Street and its methods at the instant that she was begotten that its stamp was indelibly made upon her mind for life. Here we have not only an instance of prenatal impression, but an illustration of the law of heredity, which declares that a certain

amount of healthy force must exist in the paternal sperm for the procreation of a normal child.

Cerebral Defect in Offspring Caused by Grief or Mental Shock Acting on the Mother

Innumerable instances of cerebral defect and arrested development in the offspring have been shown, by various authors, as the effect of profound grief or mental or physical shock acting on the mother. Of ninety-two children born in Paris during the great siege of 1870-71, sixty-four had mental or physical anomalies and the remaining twenty-eight were weakly, twenty-one were intellectually defective, and eight showed moral or emotional insanity. After the great Chicago fire in 1871, and after the financial crisis in the United States in 1873, and the financial crisis in Berlin in 1875 to 1880, similar defects were shown to have been produced in numbers of children begotten during those trying times.

Drunkenness in the Parents

The baneful effects upon the offspring of drunkenness in the parents has long been recognized. Quaint old Burton, in his "Anatomy of Melancholy," says, "if a drunken man gets a child it will never likely have a good brain." Not less emphatic is the prediction of Michelet: "Woe unto the children of darkness, the sons of drunkenness who were nine months before their birth an outrage on their mothers." And again, "He who is born of a nocturnal orgy of the very forgetfulness of love, of a profanation of the beloved one, will drag out a sad and troubled life." Not

less direful are the effects produced upon the brains of children born of parents addicted to the opium habit. Narcotic habits in the ancestors produce descendants in whom the normal checks on excessive nervous action are removed, so that paranoiacs, periodical lunatics, epileptics, hysterics, congenital criminals, congenital paupers, or other degenerates result. This is especially emphasized if the maternal ancestor is the transgressor.

Narcotic Habits in the Ancestors

Improper Maternal Diet During Pregnancy

Improper maternal diet during pregnancy may do incalculable harm to the fœtus. This was excellently illustrated in the results of the "fruit diet" formerly advised by certain vegetarians. Here the children became, as Elise Berwig has recently shown, rickety, irritable, peevish, liable to convulsions, morally peculiar and otherwise defective in contrast with children born of the same parents not confined to fruit diet during pregnancy.

Insane Diathesis Acquired

The insane diathesis can be acquired as well as inherited. The following are some of the most potent causes:

1. Imperfect nutrition.
2. Traumatism—blows or falls upon the head.
3. Overtaxation of the undeveloped physical powers.
4. Failure to early learn self-control.
5. Dissipation and excessive sexual indulgence.

Imperfect Nutrition

Too great stress cannot be laid upon the dangers to the brain from imperfect nutrition. When you recall to mind the anatomical structure of the brain with its complicated arrangement of cells and fibres requiring one-sixth of the blood of the body for its nurishment, you will readily understand how disastrous must be any lowering of the quality of this vital fluid. Any organ improperly nourished must soon fail in function, and improper functioning of an organ will promptly produce structural change.

Improper Feeding of Young Children

Improper feeding of young children may do incalculable harm. Excessive quantities of sweets, rich cake, pastries, early use of coffee and tea, not only fail to supply needed nourishment but create a demand for artificial stimulants; an irritability of the brain and nervous system is thus early produced, which manifests itself in numerous functional nervous disorders. Improperly strengthened and developed, the brain is unable to perform its normal functions and the stress of life's burdens renders the victim an easy prey to some of the numerous forms of insanity.

Traumatism

Another potent agency in the production of the insane diathesis is traumatism. Blows or falls upon the head of a child, so slight in their immediate effects as to be forgotten, may set up a slow inflammatory action that may so disturb the functions of the brain cells as to entirely

change the disposition of the child, and at last produce structural changes that in later life may culminate in incurable insanity. Undoubtedly many cases the etiology of which is put down as unknown, if all the circumstances of early life could be ascertained, would come under this classification. The following case from my private case-book is an apt illustration of this class of cases:

Mrs. A. Widow 45 years of age, mother of two children, came under my care in November, 1888. Mother died of cancer. Father when 70 years of age, after a most active and successful business life as merchant and manufacturer, lost his mind and during the two last years of his life was unable to do anything. When a child nine years of age, the patient, in attempting to slide down a bannister, lost her balance and fell down two stories, striking her head upon a marble floor. A severe scalp wound was inflicted, requiring several stitches. Patient was picked up unconscious, but soon recovered and showed no immediate effect from the accident. As a child, was very impetuous, hasty, and inclined to have her own way. During her entire life has been subject to extreme fits of passion, and has done many strange things, which have been a subject of comment and have greatly mortified her friends. When thirty-five years of age, married and has

since borne children, the first of whom was deformed and did not live. Five years ago, after birth of child, was very nervous, but, after short stay at Clifton Springs, recovered. Four years ago, was depressed for three weeks. In September, had an attack of laryngitis and bronchitis which lasted three weeks. Nov. 2d commenced to be positively insane and has been growing worse ever since. Has not slept more than four hours in two weeks. Is very noisy, violent, and full of a variety of delusions. After two years of treatment, patient regained almost completely her mental powers, when, after a few days' illness, she died of fatty degeneration of the heart. An autopsy made sixteen hours after death revealed a fatty degeneration of the heart and kidneys and the following condition of cranium and contents: Cranium: Vertical plate of frontal bone much thickened and its inner surface studded with bony protuberances, or tuberosities (eight in number), encroaching on the brain surface, evidently of long standing and the result of an injury. Brain: Surface pale. Frontal lobes of the cerebrum dented by bony projections from frontal bone, otherwise the brain appeared normal. Had no post-mortem been made in this case no alienist would have attributed the disease to the effects of a fall thirty-six years before. Without a dissenting voice, heredity would have

been assigned as the cause, yet there is no reason for believing, in the light of what we now know, that the father's mental trouble had any influence whatever upon this patient. A fall thirty-six years before (almost forgotten by the family) had set up a slow inflammatory action in the inner table of the vertical plate of the frontal bone, resulting in eight bony protuberances, which, by their pressure upon the brain, warped the whole life of its victim and ultimately overthrew her reason. This constant disturbance of the brain functions by this abnormal pressure produced a predisposition to insanity, which needed only the stress of an acute laryngitis to call into action the whole train of symptoms of mania with its wildest delusions and most fanciful hallucinations and illusions. Given the same cause, and a like result might be expected in any family even if no mental or nervous disease could be traced to any branch of the ancestral tree.

Another cause of the developing of insane proclivities is found in the overtaxing of the physical powers of the young before the body has been fully developed.

Overtaxing Physical Powers of Young

The custom of robbing childhood of all its joys by putting children, scarcely out of babyhood, at hard work in mines, factories, shops, and stores, has produced in the past an undue predisposition to insanity among the laboring class. Starve the

mind and exhaust the growing body and what else could be expected? The direful results of this system have, however, not failed to produce some effect upon the public mind and many salutary laws have been enacted which must greatly lessen this evil in the future.

Failure to Learn Self-Control

Another cause which often produces the insane diathesis is the failure in childhood to learn self-control.

This is usually the fault of fond but foolish parents. Accustomed from the cradle to have every whim and desire gratified, the child comes to expect the same treatment from everyone under all circumstances. Soon any opposition is fiercely resented. With the increase of years the self-will grows out of all proportion to all the other powers, until any thwarting may give rise to the most violent and uncontrollable outbursts of anger and passion. Upon such a foundation the superstructure of hysteria and the whole train of nervous and mental diseases is easily and too often erected.

Indulgence in Intoxicants, Sexual Excess

Another still more potent cause is the early indulgence in intoxicants, excessive use of tobacco, especially cigarettes, and the depletion of the general system by sexual excess. Whatever the moral or social standing of any patient presented for examination, careful inquiry should be made as to the past or present existence of any

of these habits, as complete abstemiousness is a necessity of successful treatment.

Exciting Causes

Given this predisposition to insanity, and any of the mental or physical or moral strains of life may act as exciting causes. The list is as long as the incidents of human experience. Toxic agents, like alcohol, narcotics or poisons, circulating in the blood, cerebral traumata, bodily disease, syphilis, infectious fevers, pneumonia, disorders of the heart, kidneys, or genitalia, the advent of puberty, the puerperal state, the climacteric, or the onset of old age, mental shocks, loss of friends, disappointment in love, business failures, religious excitement, anything which disturbs the physical, mental, or moral equilibrium, may figure as the immediate causative agent.

Whatever the apparent exciting cause, the appearance of insanity is chiefly owing to the individual's vulnerability to the disease, which renders him unable to bear the strains of life.

CHAPTER III.

SYMPTOMATOLOGY.

1 to 300 of Total Population Insane

The great prevalence of insanity, about 1 to 300 of the total population, renders it highly essential that every practitioner of medicine should have at least a general knowledge of its symptomatology. While a large proportion of the insane, either on account of their violence, excitability, or suicidal and homicidal proclivities, require the restraint and skilled care of a hospital for the insane, many, in whom the disease is of a mild and transient form, can be better cared for at home, and therefore come under the care of the family physician rather than the specialist. The prodromal and initiatory symptoms of every type of insanity naturally first fall under the eye of the general practitioner, and his ability to recognize and treat them not only has much to do with the future progress of the disease, but may save the patient and family much distress and manifold annoyances and business complications.

No Fixed Boundary Line Between Sanity and Insanity

As there is no absolute fixed boundary line between sanity and insanity, each individual case must be studied by itself. What may be sanity in one person may clearly indicate insanity in

another. Beliefs and opinions natural to one reared in ignorance and superstition may in a cultivated and educated person appear as positive proofs of departure from his normal mentality.

While most of the symptoms of insanity are psychic, a large number of physical phenomena are liable to accompany the disease.

Among the most important bodily symptoms are disturbances of sleep.

DISORDERS OF SLEEP.

Disorders of Sleep, Insomnia, Somnolence or Restless Sleep

These may assume the form either of insomnia, somnolence, or restless sleep.

Insomnia, Mania, Melancholia, Excited Stage of the Circular Insanities

Insomnia is a characteristic symptom of a large proportion of the acute forms of insanity. It is almost invariably encountered in mania and melancholia, and in the excited stage of the circular insanities. From its frequent occurrence in the prodromal periods of acute insanity, prolonged insomnia, in one predisposed to insanity, should always be regarded as of serious import. One marked feature, especially of acute maniacal conditions, is the slight apparent physical effect produced, in these cases, by prolonged sleeplessness. Weeks may be passed, almost devoid of sleep in many instances, with scarcely any evidence of exhaustion or general physical deterioration Frequently these extended states of insomnia are followed by a prolonged period of coma, or som-

nolence, as apparent compensation for the previously experienced lack of slumber.

SOMNOLENCE

Somnolence in Certain Conditions of Dementia Paralytica

In certain conditions of dementia paralytica and occasionally in other forms of insanity, a tendency to prolonged and excessive somnolence may prevail.

RESTLESS SLEEP

Restless Sleep, Somnambulism, Frightful Dreams

In some of the insane the sleep is disturbed by somnambulism, frightful dreams, and by their susceptibility to storms and sudden climatic changes.

DISORDERS OF NUTRITION

Disorders of Nutrition

In acute insanity marked disturbance of nutrition is generally apparent. The excessive physical activity and attendant waste and the frequent failure to take sufficient food, either from a loss of appetite or on account of delusions, produce a marked decrease in weight, and sooner or later failure of the vital powers and exhaustion of the patient. With convalescence, the weight is usually regained. If this increase of weight occurs without a corresponding improvement in the mental state, it is an indication that the case is drifting into chronicity and is an unhopeful sign.

Disturbances of digestion are of common

Constipation

occurrence, especially constipation. The condition of the bowels should receive constant attention, as pronounced and continued constipation increases the severity of the mental symptoms and impedes recovery.

SECRETIONS

Perspiration, Lachrymation, Salivation

The secretions are liable to be more or less effected. The perspiration may be diminished or increased and the lachrymal glands entirely inactive. Marked salivation appears in many forms of insanity, apparent in continuous drooling, the secretion of saliva in twenty-four hours in some cases being enormous.

Menstruation Disordered

Menstruation is usually disordered, and not uncommonly suppressed, in acute cases. If the disease becomes chronic, the menstrual disorders may disappear without mental restoration.

Examine Urine in Every Case

A thorough examination of the urine should be made, in every case, especially for casts, albumin, sugar, and the ethereal sulphates, as stuporous and confused mental states may arise from renal lesions, and other psychical phenomena may be owing to Bright's disease or glycosuria. The presence of indican or skatol in the urine demonstrates the absorption of the products of fermentative changes in the intestine, and demands cleansing and asepticising of the canal, as a means of accelerating the cure of the insanity, which is ordinarily of a confusional type.

Reflexes, Speech Paresthesias, Anesthesias

Various derangements of the functions of the brain and nervous system may appear, evidenced by alterations of different reflexes, speech anomalies, disturbances in the innervation of muscles, and paresthesias and anesthesias of the surface of the body or of the internal organs, and disorders of the bladder and bowels, the result of diminished nerve tone.

Arterial Changes

Changes in the arteries are found, in certain types of insanity, shown by a host of symptoms of arteriosclerosis.

TROPHIC CHANGES

Trophic Changes

The most important trophic disorder in insanity is the hæmatoma auris, or so-called insane ear. This consists of a blood tumor of the external ear, and is usually ascribed to traumatism. The exciting cause is, often, a slight traumatism, but a depraved physical system must be present or its production would be impossible. It is most frequently found in cases of severe acute mania, chronic mania, epilepsy, and dementia paralytica. The left ear is the one most commonly involved, but it has been observed in both ears. It is regarded as an unfavorable symptom, although it is not limited to incurable cases and may occur, occasionally, in connection with other diseases than insanity, especially in idiots.

Hæmatoma Auris

The most serious of the trophic disorders are

Bed Sores

bed sores. These may occur in connection with poorly nourished cases of mania or melancholia, but are most frequently encountered in paretics. The cause is found, in every case, in the depraved local nutrition of the part involved, making it especially susceptible to a breakdown from the slightest irritation or pressure.

Œdema, Asphyxias of the Limbs

Other trophic changes usually observed in advanced cases of dementia are œdema and asphyxias of the limbs, indicating extreme sluggishness of the circulation.

Fragility of the Bones

Extreme fragility of the bones may also exist, rendering the patient especially liable to fractures from slight falls or blows. Campbell found "that, while the normal breaking strains of ribs is from 62 to 65 pounds, in paretics it averages only about 44 pounds, and in female senile dements it may be as low as 11 or 12 pounds." This is supposed to arise from a deficiency of lime salts or some of the other constituents of the bones.

Dermography

Another marked vasomotor symptom is the so-called dermography, a condition in which a line drawn upon the skin remains visible for some time, either as a red mark or a white line bordered with red. In extreme cases sentences may be written upon the skin before they completely fade away. This phenomenon arises from a combination of local paralysis and spasms.

PULSE

Pulse

In melancholia, in old cases of chronic depressive insanity, and in stuporous insanity, the pulse is usually slow. In acute mania the pulse, although somewhat accelerated, is much less so than would be expected from the amount of muscular activity. The acute delirium may be attended by a very rapid pulse. In paresis a marked variation of the pulse is apparent, in the different stages, chiefly evidenced in the tension, which is low in the first stage and increased in the second, and may continue to the end of the third stage.

TEMPERATURE

Temperature

While, in the most of mental diseases, slight disturbance of the temperature is apparent, in certain forms, like the acute delirium, it may rise several degrees above the normal. In paresis there is also a rise, which is more marked in the evening and after the apoplectic or epileptic seizures that so frequently occur. In the intense excitement of acute mania a rise of a degree or two may be detected, while in forms of acute melancholia the reverse is true.

In the severest forms of depression and in certain stages of acutely agitated insanity, the temperature may become sub-normal. A very low temperature is regarded as a bad symptom.

Sensory Symptoms

Numerous sensory symptoms may accompany insanity, in the form of hyperesthesias or hyperalgesias, or neuralgias. Anesthesia or analgesia to temperature and pain is often encountered, exposure to intense cold and the infliction of severe burns or injuries being often attended with slight suffering.

Delusions, Illusions, Hallucinations, Confusion

The characteristic psychical deviations from the normal manifest in the insane, particularly in the subjects of the acute forms, are delusions, illusions, hallucinations, and confusion. Any of these may appear singly or in combination with the others. Delusions may appear, unattended by illusions or hallucinations, or hallucinations may be manifested years before any delusion is manifest. Mental confusion may give rise to hallucinations, or hallucinations may call forth delusions. Occasionally the prostration may be so profound that the patient passes into a state of complete coma so quickly that the transient stage of confusion is unobserved. In some cases the only mental implication is an excessive garrulousness, with a lack of logical criticism, attended by continued motor activity; in others, simply change in the moral character appears, shown by the manifestation of cruel propensities, a lack of observance of conventional rules, and motiveless acts of violence.

DELUSIONS

A delusion is simply a false belief. From a legal standpoint, the presence of delusions in mental diseases other than mania or dementia is accepted as conclusive proof of insanity. This, however, is a false conception, as many of the insane never manifest any delusions, and at times delusions may be present in persons of sound intellects. The characteristic difference between the false conceptions of the same and the insane is, that the sane man can correct his sense errors, while the insane man cannot. An insane delusion is defined by Clouston as "a belief in something that would be incredible to people of the same class, education and race as the person who expresses it, the belief persisting in spite of proof to the contrary, this resulting from diseased working of the brain convolutions." Insane delusions are of endless form and variety. They may be fleeting and transitory, or fixed and unchangeable. They may fill the life with joy and happiness or plunge the possessor into the deepest gloom and despair.

Definition of Delusion

Delusions Expansive and Depressive

Delusions may be naturally divided into expansive and depressive. The expansive delusions of the maniac are usually happy, and attended by a feeling of superabundant energy, which manifests itself in continual activity. In-

coherency of thought and changeableness of ideas also may be present. Depressive delusions, arising from false ideas of impending ruin and destitution or of crimes committed, plunge the possessor into the lowest depths of depression and despair. Delusions of persecution differ from other depressive delusions, in that they have to do with the enmity of other persons in the environment and are not concerned entirely with the ego of the patient. These delusions are of especial importance to the general practitioner, as they are frequently met outside of institutions and render their possessors a menace to society, from their acting as an incentive to assaults and murder. The prognostic significance of these delusions varies greatly, as they may be present in curable toxic insanities, in melancholia where the prognosis is uncertain, and in incurable paranoia.

Delusions from Hallucinations

Delusions are frequently elaborated from the materials supplied by hallucinations. In paranoia, for instance, the continual presence of hallucinations of hearing, annoying and terrifying the victim, at last become crystallized into permanent delusions of persecution. Many delusions spring from dreams or are conceived in half-sleep, becoming fixed and stable by continuous brooding upon them; others arise through the misconstruction and misapplication of the patient

of some paragraph read in some book or paper. Other ill-organized intellects may build up delusions out of simple day-dreams.

The discovery of the existence of delusions is of paramount importance in the diagnosis and prognosis of insanity. Whatever their origin, delusions are symptoms of a disordered intellect, and in medico-legal cases the demonstration of their presence is regarded as positive proof of insanity.

ILLUSIONS

Illusion False Perception of a Real Impression

"An illusion is a false perception of a real impression. The object perceived is changed, and presented to the consciousness in another form than the real one. An individual who hears a band of music in the pattering rain on a roof, or sees a snake in a coil of rope, experiences an illusion. Illusions are of frequent occurrence among the sane, but appear much more frequently in the insane. By the sane mind the true character of the illusion is recognized, while the insane mind receives it as an exact perception, and its intellectual functions are, thereby, more or less influenced.

Illusions of Sight

Illusions of any of the senses may occur, the most common being those of sight. One of the most frequent of visual illusions is that of identity. Friends are mistaken for strangers or

vice versa. Loved and familiar faces may appear distorted and disfigured and unrecognizable; surrounding objects may also seem changed in form and appearance.

Illusions of Hearing

Illusions of hearing rank next in frequency to those of vision. These consist mostly of the transformation of sounds heard into words, or the misinterpretation of overheard conversation.

Illusions of Organic Sensations, Smell, Taste, and Muscular Sense

Illusions of organic sensations also are frequently noted. Intestinal motions may be ascribed to the presence of an animal in the abdominal cavity.

Illusions of smell, taste, and of muscular sense or movement are of rarer occurrence.

Illusions in all Acute Psychoses

Illusions occur in all forms of psychoses, especially in the acute forms.

Illusions are often difficult to distinguish from hallucinations, and on this account some authors regard the two as having practically the same basis and retain the distinction simply as a matter of convenience.

HALLUCINATIONS

An Hallucination is a False Perception

An hallucination is a false perception. An hallucination has no material basis. Thus when a person alone, in the silence of the night, sees some absent friend by his bedside he has an hallucination of sight.

Hallucinations are false perceptions through any one of the senses.

There are hallucinations of hearing, of sight, of smell, of taste, and of feeling.

There are two varieties of hallucinations:

Temporary

1. Those which are temporary and indicate some slight disorder of the brain.

Permanent

2. Those which are permanent, caused by some serious brain affection.

Alcohol, belladonna, cocaine, stramonium, or quinine may produce various kinds of hallucinations; but these are temporary, and the victim, by argument, may be convinced of their falsity.

The hallucinations of the insane are permanent and fixed, and exert a profound influence upon their possessors that no amount of argument can counteract.

HALLUCINATIONS OF HEARING

Hallucinations of Hearing the Most Frequent

Hallucinations of hearing are the most frequent. These may consist of simple sounds, like the ringing of bells, shrill whistles, the buzzing of insects; isolated words or complicated discourses. The frequency of ear diseases in the insane afflicted with auditory hallucinations is worthy of note. W. Sohier Bryant, in an article on "The Great Psychical Importance of Ear Disease," reports that in 253 insane, examined by Koppe, Redlick and Kaufmann and himself, 35 had normal ears, 130 ear disease and 176 auditory hallucinations. The salutary effect of local

Ear Disease as a Cause of Hallucinations

treatment, in cases reported by Bryant and Emil Amberg, in removing these hallucinations, is of the highest importance, as hallucinations of hearing are considered as unfavorable symptoms.

VISUAL HALLUCINATIONS

Visual Hallucinations Next to Aural in Frequency

Next, in order of frequency, stand hallucinations of sight. These vary greatly as to form and distinctness. They may appear as simple fleeting shadows, or fierce flames of dazzling brightness, or as words, names, or sentences written upon the walls or in the sky. Pictures, beautiful or grotesque, may flash before the vision. These may be movable or stationary, simple or complex, pleasing or terrifying.

Visual Hallucinations do not Preclude Recovery

These hallucinations do not preclude recovery.

Hallucinations of Taste and Smell Generally Combined and Occur Most Rarely—Unfavorable

Hallucinations of taste and smell are generally combined and occur most rarely. These are usually of a disagreeable character. The patient perceives the odor of chloroform, sulphur, noxious gases, or smoke; he detects the taste of poison in the food, or of urine in his drinking water. These hallucinations are important from their being usually associated with dangerous forms of insanity. They are usually persistent and warrant an unfavorable prognosis.

Hallucinations of Genital Sense

Hallucinations of the genital sense are also encountered, especially in insane females, and form the basis of delusions of being violated or sexually abused.

Hallucinations of Feeling, Touch, Thermal and Pain Sense, Unfavorable

Hallucinations of feeling, of touch, of the thermal sense, and the sense of pain are not uncommon. Patients complain of vermin crawling upon them, of being burned with red-hot irons, or tortured by electric shocks. Others imagine that the body has been changed to wax and the limbs to glass and the bowels to stone. These hallucinations are of grave import and augur ill for their possessors.

Development of Hallucinations

"As regards the development of hallucinations, some are doubtless peripheral, but the majority are central in their origin. Hallucinations are never new creations, but are made up of memory pictures, stored up in the cortex; these may, however, make their appearance in new combinations. The congenitally blind never have visual hallucinations, the congenitally deaf never auditory hallucinations, though they are noted in acquired blindness and deafness." (Peterson.)

Abnormal Irritability

Among the first indications of a mental breakdown may appear an abnormal irritability, lack of self-control, and impulsiveness, with a tendency to destroy property or do personal injury.

Diminution of the Power of Conjoined Logical Thought

Another early symptom of impending mental disease is a diminution of the power of conjoined logical thought. The ideas presented are incoherent and disconnected, and gaps occur in the sequence of things remembered.

Disturbance of the power of attention may be

Disturbance of the Power of Attention

manifested, either by undue fatigue from any intellectual effort, intellectual dullness, or complete suspension of all voluntary intellectual activity, with apathy to surroundings and neglect of the personal appearance. Abnormal mobility of attention may appear, in certain cases, every external impression attracting the patient's attention, without an ability to fix it. As a result of this disturbance of attention we have "flight of ideas" and incoherence, which are thus differentiated by De Fursac: "Flight of ideas, almost always dependent upon an abnormal mobility of attention, is constituted by a rapid succession of representations which appear in the field of consciousness without any order, at the occasion of external impressions, superficial resemblances, coexistences in time or space, similarities of sounds, etc. One word arouses the idea of another one of a similar sound or having the same termination (association of assonance). . . . Flight of ideas was formerly considered, especially in mania, the result of excessive activity of the normal intellectual function. . . . In reality this exaggerated activity affects only the automatic intellectual functions, and is always associated with an enfeeblement of the higher psychic functions. . . . While in flight of ideas the representatives are still associated by their relations, which, though superficial, are yet real,

Flight of Ideas

Flight of Ideas Associated with Enfeeblement of the Higher Pyschic Functions

in incoherence they follow each other without any apparent connection.

"In mania or acute mental confusion these two symptoms may appear in succession or together in the same case."

IMPERATIVE IDEAS, FIXED IDEAS, AUTOCHTHONOUS IDEAS

Mental automatism may be manifest by the continued presence of an all-engrossing idea that takes complete possession of the mind.

Three varieties of these ideas have been differentiated, viz., imperative ideas, fixed ideas, and autochthonous ideas, and thus defined by Wernicke. "An imperative idea imposes itself upon the patient's consciousness, against his own will; he recognizes its pathological character and seeks to rid himself of it. It is a parasitic idea recognized by the patient as such. A mother is haunted by the idea of killing her child, whom she loves dearly. As she herself states, she can no longer think of anything else; but she recognizes it as a morbid phenomenon and begs to be relieved of it. This is an imperative idea.

Imperative Idea Absorbs Patient's Consciousness against His Will, Recognized as Pathological

"A fixed idea, on the contrary, harmonizes with the other representations. Therefore it is never considered by the subject as foreign to the mind nor as a pathological phenomenon.

Fixed Idea not Considered by the Subject as Pathological

"A mother who has lost her child is convinced

that if she had given it a certain kind of medicine the child would not have died. This idea does not leave her, appears to her perfectly legitimate and natural; this is a fixed idea.

"Fixed ideas form the basis of certain delusional states, notably that of paranoia.

Autochthonous Idea Attributed by the Patient to Some Malevolent Influence

"Autochthonous ideas, like imperative ideas, are developed alongside of normal associations. The only difference is in the patient's interpretation of them; while the imperative idea is recognized by him as pathological, the autochthonous idea is attributed to some malevolent influence, most frequently to some strange personality. If he complains, it is to the police officer and not to the physician. A mother believes that her neighbor forces upon her the idea of killing her child; this is an autochthonous idea."

DISORDERS OF THE WILL

Will-Power may be Exaggerated, Diminished, or Abolished in Insanity

The will-power may be exaggerated, diminished, or abolished in insanity. In many depressive states a marked diminution of the will-power is apparent. Devoid of energy, every exertion, mental or physical, is an effort, and in certain forms characterized by exhaustion an absolute aboulia is evidenced. In these cases no resistance is offered to morbid impulses and their conduct is governed by their imperative conceptions, fixed or autochthonous ideas, or delusions. The

mere suggestion of an act insures its execution. Deprived of will-power to resist them, these ideas in the insane form the basis for their frequent dangerous explosions and criminal acts; hence the kleptomoniac steals, the pyromaniac burns, the homicidal maniac kills his fellows, and the suicidal melancholic destroys himself.

DISORDERS IN THE EMOTIONAL SPHERE

The most commonly encountered emotional disturbances in insanity are exaltation and depression.

Exaltation in Maniacal States and Paresis

Exaltation is encountered in maniacal states and in paresis, ranging from mild emotional and intellectual exhilaration to complete mania with incoordination of all the intellectual functions.

Emotional Depression Prominent Symptom in Many Forms of Insanity

Emotional depression is one of the most prominent symptoms in many forms of insanity. This varies from a mild unexplainable sense of sadness and general discontent to the most intense mental agony.

In certain forms of insanity intellectual activity seems completely suspended and the patients appear devoid of any feelings either good or bad.

Loss of Moral and Ethical Sense

In other cases the mental disturbance appears limited to the moral or ethical side of the character. With these patients every law relating to decency and propriety is disregarded and every check of conscience is apparently lost. While

reasoning correctly, the patient seems incapable of properly controlling his behaviors.

Loss of Instinct of Self-Preservation

The common instinct of self-preservation may be lost, giving rise to self-mutilation or suicidal attempts without the existence of any perversion of the nutritional instinct, causing paralysis of appetite and utter distaste for food or a desire for the most noxious substances.

Sexual Instinct Exalted, Lost, or Perverted

The sexual instinct also may suffer, being either exalted, lost, or perverted. Perversion of the sexual sense is, however, most commonly found in perverts on the borderland of insanity.

DISORDERS OF MEMORY

Defects of memory are prominent characteristics of certain mental diseases, especially those of organic origin.

Amnesia; Anterograde, Retrograde

Two distinct varieties of amnesia are encountered: the anterograde, which applies to recent events and is due to a default of fixation of a representation, and the retrograde, which relates to occurrences long past and is caused by a defect of the power of conservatism and reproduction.

Amnesia may be sudden or insidious in its onset, stationary, retrogressive, or progressive in its course. It may be partial, involving only one class of impressions, like names or numbers, or general, when all classes of impressions are involved, or it may be limited to certain periods of

existence. Hallucinations of memory are also encountered; in these cases past events present themselves to the consciousness, altered in their details and relations to the patient and exaggerated or diminished in importance. The most marked disturbances of memory are found in the dementias, and in the advanced stages the memory may be completely obliterated.

DISORDERS OF JUDGMENT

Judgment Defective and Unreliable

As the result of disorders and defects of memory and the presence of delusions, hallucinations or illusions, or imperative conceptions, the judgment is faulty, defective, and unreliable. The defect in the judgment may vary from a slight loss of the critical faculty to complete deficiency. Marked impairment of judgment is dependent upon actual organic brain change and occurs in terminal dementia, senile dementia, and general paresis.

DISORDERS OF THE REACTIONS

Disorders of the Reactions

The various mental operations find their outward expression in the reactions. These may be either voluntary or automatic. Between the two there are all intermediate gradations.

We shall consider: (1) aboulia, loss of willpower, (2) automatic reactions.

ABOULIA

Aboulia, Complete Loss of Will Producing Stupor or Complete Automatism

Entire loss of will produces either stupor or complete automatism. When less pronounced, a general languor and disheartedness is apparent, and every act is labored and painful, indicative of psychic paralysis.

AUTOMATIC REACTIONS

Automatic Reactions, Positive—Negative

These may also be paralyzed and superseded by the inertia of stupor; or exalted, as the result of a weakening of the conscious will.

Two forms of automatic reactions may be manifested, the positive and the negative.

Positive Revealed by Suggestibility and Impulsiveness

Positive automatic reactions are revealed clinically by two phenomena—suggestibility and impulsiveness.

Suggestibility Catalepsy

Suggestibility is a condition in which the reactions are controlled by external impressions. Its most marked manifestation is catalepsy, in which the limbs adopt and retain any position in which they are placed by the examiner. This phenomenon has been designated waxy flexibility (flexibilitas cerea).

Many patients appear devoid of all spontaneous activity, simply repeating the exact words which they may hear, or the actions of those by whom they are surrounded, but they may be able to respond, promptly, to any direct command.

Sometimes, if set in motion, they will perform correctly any acts to which they are accustomed.

Impulsive reactions may be divided into three groups: (1) The passionate impulses, (2) the simple impulses, (3) the phenomena of stereotypy.

Passionate Impulses Provoked by Irritation

1. Passionate impulses may be called into action by any irritation, however slight. Numerous patients exhibit them, especially epileptics and maniacs. An unpleasant look, or the slightest touch on the part of an associate, may provoke violent personal attacks.

Simple Impulses Occur without Provocation

2. The simple impulses, purely automatic, appear without the slightest provocation. A patient sitting alone, in perfect quietude, may suddenly spring up and break a window and then immediately return to her previous position. Afterwards, although retaining a perfect remembrance of her act, she is unable to give any explanation of her conduct.

Stereotypy

3. Stereotypy is a morbid tendency to assume continuously the same attitudes, reiterate the same words or sentences, or repeat the same motions. Certain patients assume and retain for hours at a time, positions exceedingly awkward and uncomfortable. Others repeat interminably certain words or phrases, or hum a single line of a tune. Others walk continuously back and forward over one strip of ground or hop on one foot,

or turn somersaults, pick at their clothing, or grind their teeth.

Negativism

Negative automatism forms the basis of Negativism. "Negativism," according to Kraepelin, "consists in the reaction to stimuli which are the reverse of the normal reaction." Patients do just the opposite of that which is required of them. If asked to protrude the tongue they close the teeth firmly; if asked to lie down, they get up. Every effort in caring for them is strenuously resisted—bathing, combing the hair, or attending to any of the calls of nature.

DISTURBANCES OF EXPRESSION

Disturbances of Expression: *Dementia Præcox*, *Paresis*, *Mania*, *Paranoia*

The movements of the insane furnish important clews to their particular type of insanity.

The sufferer from dementia præcox, although possessed of accurate comprehension, is listless, lackadaisical, uninterested in anything, prone to day-dreams, senseless laughter, strained attitudes, and sudden impulsive movements.

Paretics are friendly, communicative, proud, egotistic, and boastful of their superior powers and great possessions. The depressed move about slowly and laboriously, or sit quietly, interested in nothing but their agonizing thoughts. The apprehensive are restless and uneasy, bite their nails, pull out their hair, and loudly bemoan their fate. In extreme retardation the patients

remain motionless in bed, answering only in whispers.

The maniac rushes about, cries, laughs, sings, dances, is talkative and continually busy. Hysterical patients, by their manners and personal appearance, strive to make an impression. The paranoiac, when at large, continually attempts to thwart adversaries; in confinement, he assumes the dignified air of a martyr, and continually tries to furnish proofs of his pretensions.

Speech

The mental state of the insane is also revealed by their speech and writing. The maniac talks continuously in a rambling, disconnected manner.

Paretic Articulation Imperfect

In paresis there is imperfect articulation and inability to pronounce certain words, with tremulousness of the muscles of the mouth on attempting to speak. The speech of retarded patients is low and difficult.

Melancholic Taciturn

Melancholics are inclined to taciturnity, or their speech is filled with their griefs or is a continuous succession of groans and lamentations.

Catatonic Mute

The catatonic may be mute for weeks, or suddenly interrupt his silence by shouts and songs or by a senseless repetition of single words or sentences.

Writing

The writing often mirrors the mental state and reveals delusions that are concealed in conversation.

Maniac Voluminous

The maniac writes voluminously, but his ideas are confused and disconnected and his characters often illegible.

Paretic Omissions, Blots, Mistakes

The writing of the paretic is filled with omissions, blots, misplaced words and sentences, and numerous corrections.

Melancholic and Dement Characters Imperfect

In melancholics and dements the individual characters are imperfect, contracted, and crowded.

Catatonic Endless Scrawls

The catatonic patient fills his paper with an endless succession of unintelligible scrawls.

Conduct

The conduct of the insane reflects the morbid changes in their psychic life.

Delusions of sinfulness incite patients to penance, self-mutilation, or suicide.

Delusions of persecution induce measures of defence, complete isolation, frequent journeyings, and assaults upon supposed enemies.

Hypochondriacal delusions arouse an unsuitable desire to try every advertised cure of their imagined ills, and excite an inordinate craving for attention and sympathy.

Maniacal excitement impels to every form of excess, breaches of decorum, immoral acts, brawls, quarrels, destruction of property, and collisions with all organized authority.

The paretic, while prone to every form of dissipation of the maniac and continual conflicts with civic authority through his expansive ideas,

is liable to involve himself and family in financial ruin.

The paranoiac, in defense of his rights, besieges officials and courts, writes love letters and proposals to prominent ladies, seeks to found religious orders, or takes the law into his own hands and shocks the public by some brutal crime.

CHAPTER IV

INFECTION PSYCHOSES

Fever Delirium, Infection Deliria, Post-febrile Psychoses

In this group are embraced the forms of mental alienation produced primarily by the toxins of infectious disease. They are divided by Kraepelin into fever delirium, infection deliria, and post-febrile psychoses.

A. FEVER DELIRIUM

The effect of fever in the production of mental disturbances has long been recognized. Mental aberration, varying as to the degree of severity and length of duration, has been reported in connection with practically all febrile diseases. The frequency and severity of the psychic manifestations depend upon the nature and severity of the disease, the time of life, and the susceptibility of the individual affected. Four different forms of delirium are encountered, varying in severity, according to the intensity of the toxic action upon the cortical neurons, from slight irritation to paralysis and complete destruction.

Four Forms

ETIOLOGY

The majority of delirious states occur during

the height of the disease and vary little in form, whether occurring in connection with typhoid fever, pneumonia, influenza, acute rheumatism, meningitis, or any of the exanthemata. The chief causative factors are the toxins developed by the fever, the high temperature, acceleration of metabolism, and the disturbed condition of the circulation. Other potent causes are alcohol and an unstable nervous system.

Chief Causative Factors

PATHOLOGICAL ANATOMY

The pathological findings are chiefly found in the cortical cells, which show changes similar to those which have been produced in animals by the application of superheated air.

Changes in Cortical Cells

SYMPTOMATOLOGY

Four groups of cases are encountered, subdivided, according to the severity of the symptoms. The first group exhibits irritability and slight or pronounced motor restlessness. The sleep is broken and disturbed by unpleasant dreams. The patient complains of pains and unnatural sensations in the head and a general sense of bodily discomfort, and desires to be left undisturbed.

Four Groups of Cases

In the second group the symptoms are intensified. Dreamlike visual and auditory illusions and hallucinations begin to appear. Objects in

the room assume grotesque forms. The ears are filled with frightful sounds or strains of beautiful music are heard. Thought is usually confused and dreamy, but the patient may momentarily return to consciousness. The emotions may be exalted or depressed and the bodily restlessness is markedly increased.

The third group presents a marked increase in the number and severity of the symptoms. With marked disturbance of consciousness and pronounced confusion of thought, disoriented and oblivious of his physical ills, the patient prattles continuously. The emotional states are intensified, evidenced by frequent wild, impulsive outbreaks soon becoming irregular and uncertain, indicating a commencing paralysis. The motor restlessness is intense and constant, only interrupted by short snatches of sleep.

The fourth group embraces the severest grade of cases. These patients, completely disoriented and oblivious of all external impressions, when not comatose talk continuously, the conversation being low, mumbling, and incoherent. Cephalalgia and subsultus tendinum now appear. A state of coma vigil, with lethargy, is of frequent occurrence.

The motor activity varies greatly; in some cases being extreme, in others simply limited to twitchings of individual muscles of the limbs or

face, or it may involve the tongue, causing a peculiar enunciation.

COURSE

Duration One Week in Three-Fourths of the Cases

In three-fourths of the cases the delirium does not continue beyond one week and usually disappears when the temperature subsides. Occasionally, the delusional ideas persist for a long time.

PROGNOSIS

Prognosis poor

The prognosis is poor, but varies according to the severity of the delirium, being fatal in at least one-third of those who advance to the third or fourth grade. Some cases pass from this disease into an exhaustion psychosis or dementia. In others the delirium is followed later by manic-depressive insanity, dementia præcox, or dementia paralytica.

TREATMENT

Hydrotherapy

The treatment, in general, is that demanded by the initial disease. Much benefit is derived from hydrotherapeutic measures, cold packs and frequent spongings, or, in case of great excitement, from the prolonged warm bath. Patients should be continually watched to prevent their doing themselves bodily injury or committing suicide. The presence of a competent skilled

trained nurse at all times is imperative, as thus mechanical restraint, which is highly objectional, can be avoided. The remedies should be chosen according to the totality of the symptoms. The remedies most frequently indicated are arsenic, baptisia, belladonna, bryonia, hyoscyamus, lachesis, rhus toxicodendron and stramonium.

B. INFECTION DELIRIA

The infection deliria embrace psychoses developed in the course of certain infectious diseases, including the initial delirium of typhoid and smallpox and the deliria attending malaria, acute chorea, influenza, and hydrophobia.

Deliria of Typhoid

The initial deliria of typhoid has been most thoroughly studied and is best known. The characteristic symptoms of typhoid delirium, according to Farrar, are: "(1) impaired associative activity; (2) disorientation; (3) psychomotor excitement; (4) fallacious sense perceptions with developing delusions; (5) anxious affective states." For a short time preceding the attack the patient is usually nervous, sleepless, and unduly restless, especially at night. In persons with a faulty heredity the attack may suddenly develop and is usually fatal.

The initial delirium of smallpox, usually appearing between the third and fifth days, is violent in character and of short duration. The

Delirium Violent, Suicidal, Tremor, Convulsions

symptoms resemble those of the initial delirium of typhoid, but there is greater violence with pronounced suicidal tendencies, and greater mental cloudiness. Tremor and convulsions may also be present. As soon as the eruption appears the mental symptoms usually pass away, although they occasionally continue into the pustular stage. Between the eruption and pus fever, some patients exhibit visual and auditory hallucinations, which simply disturb them without affecting their thought or conduct. Remissions may occur during the daytime, although the consciousness is, even then, somewhat clouded. The delirium rarely persists more than a week, usually disappearing with the onset of the fever, although some cases verge into the characteristic fever delirium.

Prognosis bad

The prognosis is bad, forty to fifty per cent. of the cases proving fatal.

Sudden Development, Excitement, Clouded Consciousness, Violence

The infection delirium of malaria is markedly intermittent and accompanies or replaces the fever. It appears, most often, in the tertian or quotidian varieties. The delirium may appear, for a few days, in the commencement of the disease, in lieu of the fever. Its characteristics are its sudden development, anxious excitement, deep clouding of consciousness, and tendency to great violence. The course is usually short, followed by deep sleep, when the patient, upon awakening, has little or no remembrance of his illness.

Mental Confusion, Illusions, Hallucinations, Delusions, Speech Disturbed

The delirium of acute chorea is characterized by a mental befogging, attended by indistinct illusions, hallucinations, and delusions. The speech is disconnected and the patients are disoriented, inattentive, and distractible. The emotional attitude varies, the patient being depressed, elated, or violent.

In addition to the mental symptoms, exaggerated choreic movements, night and day, disturb the sufferer, preventing sleep and interfering with nutrition.

The duration of the disease varies from a few days to a few weeks, frequently terminating fatally.

Clouded Consciousness, Hallucinations, Disturbed Speech, Apprehensive Excitement

The delirium of influenza is characterized by clouded consciousness, hallucinations, disturbed speech, and apprehensive excitement. Paralysis of speech and deglutition, with polyneuritic symptoms, may also be present.

Emotional Changes,

Clear Consciousness

The mental disorders of hydrophobia may usher in the disease. Long before the characteristic hydrophobia symptoms develop the patients suffer from disturbed sleep, become depressed, seclusive, and subject to attacks of anxiety. Occasionally an irresistible restlessness occurs, temporarily relieved by violent exercise. Marked causeless emotional changes come into prominence and persist through the entire disease, but the consciousness remains clear ex-

cept during the spasms. In rare instances a continuous changeable delirium is developed. During the paroxysms the anxiety and agitation is intense and, in some cases, hallucinations of sight and hearing appear. The symptoms of excitement gradually diminish and disappear when the paralytic stage is established.

The diagnosis is based upon the presence of psychosensory hyperesthesiæ and the characteristic pharyngeal spasms.

TREATMENT

The treatment of the different infection deliria is based largely upon the treatment of the underlying physical disease. Abundant liquid nourishment must always be administered. In cases of great motor excitement, relief may be obtained through the prolonged warm bath. The bowels should be kept open by high rectal injections of normal salt solution if necessary, frequent flushing of the alimentary canal being demanded to antagonize the underlying toxæmia. The remedies should be chosen according to the totality of the mental symptoms and those of the basic disease.

Nourishment, Prolonged Warm Baths

C. POST-INFECTION PSYCHOSES

The post-infection psychoses are characterized by a weakening of the intellect and emotions,

Intellect weak,

Delusions, Depression

usually accompanied by delusions and a prevailing state of depression. Many other psychoses, the exhaustion psychoses, dementia præcox, manic-depressive insanity, (in fact, almost any form of mental alienation), may date their inception from a fever, the first symptoms often appearing before the fever symptoms subside.

The post-febrile infection psychoses vary, in form, according to the severity of the attack.

Mental Symptoms

In the mildest form, after a decline of the fever in a severe attack of infectious disease, the patients manifest a lack of their accustomed mental and physical vim. Easily fatigued, they appear dull and sluggish, remain in bed and do nothing. All mental effort is difficult. Completely oriented, they are free from hallucinations, or transient hallucinations of sight and hearing appear when they close their eyes, or unusual physical sensations are experienced which they greatly exaggerate. Depressed, worried, or irritable during the day, they may at night become exceedingly anxious and disturbed. Occasionally hypochondriacal ideas, with suspicions of poison, may appear, or persecutory delusions may arise, impelling the patients to attacks of violence or to suicidal attempts. They appear dull and stupid and reserved, and are taciturn regarding their mental state. The chief physical symptoms are sleeplessness, anorexia, and loss of

bodily weight. The diseases most frequently productive of the mild form are influenza, polyarthritis, and whooping cough in children. In rare instances it follows tuberculosis and chorea. The duration varies from a few weeks to a few months, the improvement being apparent when the basic physical disease disappears.

Chronic Nervous Exhaustion

It may be confounded with chronic nervous exhaustion, from which it is differentiated by its greater severity and obstinacy, lack of improvement from rest and relaxation, and the inability of the patient to recognize his true mental condition.

Second group much severer than first

The second group of post-febrile infection psychoses is much severer than the first. The first symptoms, always arising during the fever, are delusions, hallucinations of any or all of the senses, marked anxious excitement, complete disorientation and mental confusion. With a decline of the temperature, and an improvement of the initial disease, the patients become less disoriented and excited, but there is a persistence of the delusions and hallucinations. Dejected, anxious, and ugly, obstinate and quarrelsome and subject to passionate outbursts, they may make attempts at suicide, or violently attack those about them. The chief physical symptoms are sleeplessness and imperfect nutrition. When the appetite and sleep return the mental symptoms

disappear. The patients then recognize their condition and gradually return to their normal state, but for some time are easily fatigued and show a lack of their accustomed mental and physical power. A few cases never recover. Death is rare and always results from exhaustion or some complication. The disease lasts from a few months to a year. The diseases with which this form is associated are typhoid fever, smallpox, articular rheumatism, and, occasionally, tuberculosis.

Melancholia of Involution

The disease with which it is most easily confounded is melancholia of involution, occurring in the adult as the result of some infectious disease. The melancholic, however, is more anxious and less irritable, has fewer hallucinations and is tortured by his own unworthiness and is free from persecutory delusions. It is diagnosed from dementia præcox by its greater disturbance of apprehension, its greater disorientation, in the beginning of the disease, and the absence of negativism and stereotypy.

Manic Depressive Insanity

It is distinguished from manic depressive insanity by its greater amount of psychomotor retardation.

Third Form is the Severest

The third is the severest form of post-febrile infection psychosis. This is characterized by an intense delirium, soon followed by stupor. With a betterment of the physical condition the mind

remains sluggish, the memory poor, the judgment faulty, and external impressions are imperfectly perceived and elaborated. Indifferent to their surroundings, incapable of caring for themselves, the patients lie in bed and require to be fed and tended like children. Some are quiet, others peevish and restless. Physically there is failure of the nutritive processes. In some cases hemiplegia, speech defects, and epileptiform seizures occur.

Prognosis doubtful

The prognosis is doubtful, as only one-half of the cases recover, and that after many months. The other half, after a slow improvement, remain mentally impaired, forgetful, with weak judgment and will, impoverished in thought, and incapable of any taxing cerebration. This form is usually caused by typhoid fever, occasionally by malaria.

Catatonia

This form, while resembling the stupor of catatonia, lacks its negativism and is distinguished from manic depressive stupor by the lack of retardation and by its poor memory.

TREATMENT

The treatment of all these types is largely that of careful nursing, judicious feeding, constant watchfulness, and the remedies indicated by each individual case.

Another variety of post-febrile infection psy-

Fourth Form

chosis following typhoid, is characterized by suddenly developed intense excitement, with clouding of consciousness, flight of ideas, and grandiose delusions. The prodromal symptoms are few and illy defined. In the midst of the fever, following a stage of restlessness, the patients suddenly become disoriented and distractible. Visual and auditory hallucinations appear, followed by expansive fantastic delusions and marked fabrication. The emotions are varied and continually change. Absolutely without insight, the patients exhibit a flight of ideas, productiveness, and a tendency to rhyming. Impelled by an overpowering restlessness, rest in bed is impossible. Sleep is greatly diminished, food is discarded, and rapid emaciation follows. In a part of the cases the course is rapid and the termination favorable. In these patients, even after convalescence is advanced, irritability may be present and a slight fatigue may awaken the whole train of mental symptoms.

A considerable portion of these cases develop dementia. This form closely resembles the expansive variety of dementia paralytica, but lacks its physical characteristics.

The treatment demanded is rest in bed, warm baths, nourishing food, skilled watchful nursing, and the indicated remedies.

CEREBROPATHIA, PSYCHICA, TOXÆMIA, KORSAKOFF'S SYNDROME, POLYNEURITIC PSYCHOSIS, KORSAKOFF'S DISEASE, NEUROCEREBRITE.

Alcohol

This psychosis, when first described, was supposed to be caused solely by alcohol, but further research has shown that it may also occur as a post-febrile infection psychosis. As the symptoms when dependent upon fever are practically the same as when caused by alcohol, we shall describe them in this connection.

ETIOLOGY

Toxæmia

The exact cause of this disease is still in doubt. That it is the result of a toxæmia is admitted, but the nature of the poison has not been determined. While alcohol, at first, was supposed to be in all cases an etiological factor, it has since been found that the supposition is an error. Undoubtedly the condition most frequently develops from alcoholic poisoning, but numerous cases have been recorded which have followed typhoid fever, tuberculosis, gastro-enteritis, diabetes, various disturbances of the kidney and liver, and lead and arsenic poisoning, or a profuse hemorrhage. De Fursac says, *De Fursac* that "the polyneuritic psychosis forms, from an etiological standpoint, a transition between infectious psychoses, toxic psychoses, and psychoses of exhaustion. In fact, infection, intoxication,

and exhaustion each has the power to give rise to the disease; it may supervene in the course of chronic alcoholism, or follow a profuse hemorrhage or an infectious disease such as influenza. It is probable that all of these factors produce their effect by the same mechanism—most likely by inducing a disorder of general nutrition, resulting in an auto-intoxication."

Prime of Life

The disease occurs most frequently in the prime of life, although children and the aged are not exempt.

PATHOLOGY

A great variety of lesions have been described by different observers. Among the most important have been destroyed nerve cells and fibers in the spinal cord, numerous small hemorrhagic spots in the central gray matter, disintegrated peripheral nerves, together with varied lesions in nearly all the internal organs, confirming the view, derived from clinical observation, that the disease is the result of a general intoxication.

SYMPTOMATOLOGY

Delirium Tremens

In alcoholic cases, in the beginning, the symptoms may resemble those of delirium tremens. The onset may be acute or preceded by a prodromal period of irritability, insomnia, or deep sleep or stupor. After a few days the agitation

and delirious symptoms subside, but disorientation persists and the characteristic amnesic symptoms come into prominence, together with the signs of polyneuritis. *Polyneuritis*

Lapses of memory are unrecognized by the patient, and are likely to be filled in with fabrications. Although confined in bed, the patient may describe, in detail, the incidents of some excursion made since the physician's last visit, clothing the story with every semblance of truth. He may insist that he has visited a theatre, give the name of the play, describe the principal actors, the parts which they have taken, and their costumes. In severe cases the patient may be unable to recall the most recent events. While returning from the table he may forget that he has dined. The names and faces of wife and children may be forgotten and yet a knowledge of certain other objects and of events may be retained. Usually the amnesia is most marked regarding events which have occurred since the onset of the disease, but it may extend to events of early life. His former employment, residence, and family may be entirely obliterated from the patient's memory. Disorientation may be complete, extending to persons, time, and place. Strangers may be addressed as old friends and wife and children be unrecognized. *Memory*

Changeable and transitory, depressive, or ex- *Delusions*

pansive, or terrifying delusions and hallucinations may also be present; in some cases appearing only at night, in other cases persisting throughout the day.

Mental Capacity

Outside of these disorders the intellect may appear little impaired. In certain matters the patients may show judgment, answer questions, and understand what is said to them, cleverly concealing their memory defects. Their own condition, however, is not understood and they are unable to work successfully. They may write letters and obey orders, but are shiftless and thoughtless. In the beginning, the emotional attitude is one of anxiety, later changing to indifference and sluggishness. Some cases are irritable and suspicious, others good-natured and elated, but all are changeable in their moods. After the subsidence of the delirium, patients are quiet and orderly, but, from their deficient memory, neglectful of their personal duties and given to repetitions. The physical symptoms are ordinarily those common to multiple neuritis. These are, however, sometimes wanting. We find the foot and wrist-drop, hyperesthesias, anesthesias, and paresthesias, atony and atrophy of certain muscles, loss of tendon reflexes, cystic troubles, some degree of ataxia, disturbances of speech and deglutition, paralysis of the facial nerve and of the eye muscles, irregular and inactive pupils,

tremors of the fingers, and frequently epileptiform seizures.

COURSE AND PROGNOSIS

Course protracted

After a rapid development the course of the disease is usually protracted, lasting from a few months to a year. The disease may terminate in partial or complete restoration, death, or dementia. When death occurs it usually is the result of tuberculosis, influenza, or pneumonia. The prognosis is usually bad, the majority developing dementia, characterized by its peculiar memory defects. When improvement occurs, however perfect it may be, any indulgence in alcohol will precipitate a relapse and a return of the original symptoms.

Prognosis bad

DIAGNOSIS

Diagnosis

The diagnosis is based upon the characteristic memory defects, the disorientation associated with apparent lucidity, and the attendant polyneuritic symptoms.

TREATMENT

Treatment

The treatment consists of rest in bed, total abstinence from all alcoholic stimulants, and abundant alimentation in a liquid form. The neuritic pains are best combated by warm or cold applications, according to the individual

idiosyncrasies. When nerve tenderness has subsided, galvanism, massage, and gymnastic exercises will help to restore the atrophied muscles.

The remedies most frequently effective are aconite, anacardium, arnica, arsenicum, belladonna, bellis perennis, hypericum, nux vomica, plumbum, zincum metallicum, prescribed according to the individual symptoms.

CHAPTER V

EXHAUSTION PSYCHOSES

The exhaustion psychoses, collapse delirium, amentia, and chronic nervous exhaustion are psychoses which result from some severe physical strain produced by acute disease, loss of blood, or childbirth, with which may be associated a toxæmia resulting from an infectious organism or the destruction of tissue.

Definition

A. Collapse delirium, the acute delirium, delirium grave, phrenomania, Bell's disease.

ETIOLOGY

Collapse delirium is fortunately one of the rarest forms of mental disease, Christenson reporting only 33 cases in 1,800 admissions to the Aarhus Institution and Berkley only three in 960 admissions to the Baltimore Asylum.

Rare disease

In neurotic individuals this disease may arise from prolonged mental strain, severe trauma, surgical operations, psychic shock, loss of blood, fright, exhaustive diseases—such as the exanthemata, typhoid fever, pneumonia, erysipelas, influenza, and especially childbirth.

Strain, Trauma, Shock, Exhaustion

PATHOLOGICAL ANATOMY

Brain, Spinal cord

Numerous changes in the cells and fibres of the brain and spinal cord have been ascribed to the disease by different observers, but as yet no definite pathology has been established.

SYMPTOMATOLOGY

The disease presents two marked stages: first, excitement; second, collapse.

There may be a prodromal stage or the invasion may be extremely sudden, cases having been recorded in which the patient has become suddenly maniacal on awakening from sleep.

Stages

If there is a prodromal stage it is characterized by sleeplessness and a change in the patient's general character and appearance; then follows clouding of consciousness to mental confusion,

Mental Confusion

incapacity for thought, pain, with a feeling of fullness of the head and other congestive phenomena. Soon vivid hallucinations appear, the physical symptoms are intensified, the nutrition rapidly sinks, and the intense maniacal delirium commences.

In the first stage the malaise, extreme cephalalgia and intense bursting sensation in the head, with spastic narrowing, or, more rarely, inequality of the pupils, may strongly suggest a begin-

ning meningitis. The patient now appears like one intoxicated; he staggers about the room; at first, perhaps, melancholic, he soon becomes joyous, dances, shouts, and indulges in an expansive hallucinatory imagery. The mania soon increases to a veritable frenzy. The brain, continually stimulated to the highest degree of excitement, night and day, without any cessation, is engaged with a series of delusions, which so rapidly flit through the mind that any coherency of thought or speech is impossible. In mortal terror, caused by their fearful delusions, the patients dash themselves against the furniture and walls, and, unless prevented, may do themselves serious bodily injury. More rarely they attack their attendants and nurses. Persecuting hallucinations are usually present; detectives pursue them, devils attack them, enemies endeavor to poison them, ferocious beasts spring upon them. Their skin is covered with vermin or worms crawl through their flesh. Night and day, unceasingly, they shout, scream, and chatter their senseless jargon.

Frenzy

At the acme of the disease the mental confusion increases, the delirium changes; single words or single syllables are repeated over and over again, interspersed with blood-curdling screams: nor are their bodies less active; arms, hands, head, and feet are in continuous motion, the

Confusion, Incoherency

CASE OF PUERPERAL FORM OF EXHAUSTIVE PSYCHOSIS

muscular movements being uncertain, massive, and aimless. Frequently, and for a considerbale length of time, a sort of circular motion of the hands about the head is made. Often the teeth are ground for hours at a time. Occurring, as this disease usually does, in persons already much weakened by disease, its victims soon sink from exhaustion unless great care is exerted. Entirely oblivious to their surroundings or anything that is told them, medicine and food have to be administered to them by force. *On Oblivion*

The general appearance reveals at a glance the dangerous condition. The eyes are wild and staring, often so congested and enlarged that they look as if they would burst from the sockets.

The head is intensely hot, tongue heavily coated, breath fetid, the lips are dry, teeth covered with sordes, and the pinched look of the face reveals the lowered vitality. The pulse is exceedingly rapid, small and weak, ranging from 100 to 130. The temperature is always high, ranging from 100 degrees F. to 106 degrees F. The fever, however, varies from day to day in an irregular fashion. Sleep is entirely wanting unless forced by drugs. Marked gastro-intestinal disturbances commonly appear. Little food is taken, either because of the persistent nausea and vomiting, or as the result of delusions; and the weight rapidly decreases. The urine is often scanty, of *Intense fever*

high specific gravity, highly toxic, showing traces of albumen and sugar, an increase of uric acid and indican, and a diminution of the chlorides. Apoplectic and epileptiform convulsions frequently occur.

Course short

The course of the disease is short, ranging from a few hours to one or two weeks, terminating usually in death or recovery. If it is the former, the delirium continues, no sleep comes, the pulse increases in rapidity, the temperature continues to rise, and, with the persistent weakening of the patient, the mind becomes less and less cognizant of its surroundings. The tongue now becomes dry and brown, the forehead is covered with profuse sweating, emaciation rapidly advances, and the sufferer becomes more and more quiet, but with the quiet of exhaustion. Sleep comes not, but in its place coma. The motor excitement ceases, ataxia and paresis of the extremities ensue, with irregular spasmodic movement, perhaps accompanied by an intense tremor. The delirium becomes muttering, the spastic pupils relax, the pulse becomes quicker and weaker, the skin cyanotic, the lungs are hypostatically engorged, and death closes the scene.

Signs of Recovery

When recovery takes place, the first sign of improvement will be a short sleep, from which the patient awakens still wild, but evidently slightly refreshed; soon other naps follow and

ultimately a good sleep comes. With the cessation of complete sleeplessness, the maniacal fury abates, the patient becomes less restless, and suddenly, or by degrees, regains consciousness. When the mental storm is passed the patients are likely to be left in a state of exhaustion, from which, by degrees, they are restored to more or less perfect physical health.

PROGNOSIS

Grave prognosis

The prognosis is always grave, as from 50 to 75 per cent. of the cases are fatal; but those who do not die from collapse usually recover.

TREATMENT

In no form of insanity is the outcome more dependent upon the treatment. The severe character of the physical and mental symptoms renders the most careful nursing and care a necessity. Because of their weakened physical state, removal to an insane hospital is often impossible. When a good general hospital is not near at hand the patients must remain at home. On account of the intense excitement, the continual attendance of one or two experienced trained nurses is imperative. If possible, mechanical restraint should be avoided, at least until appropriate hydrotherapeutic measures have proven unavailing. To allay the hyperexcitement the

Baths

prolonged warm bath should be thoroughly tried and will often prove effective. The duration of the bath, according to the necessities of the case, may vary from a few minutes to several hours. When the temperature is high and signs of marked toxæmia are present, saline infusions may prove useful. Symptoms of collapse may demand stimulants or high rectal injections of normal saline solution at body temperature. Careful attention must be given to the nutrition, by the regular administration, every two hours, of small quantities of milk or of milk mixed with raw eggs or bovinine. If the stomach rejects nourishment, two or three nutritive enemata should be given every twenty-four hours.

Saline injections, Stimulants Nutrition

REMEDIES

The remedies which have clinically proven most effective in the treatment of this disease are aconite, agaricus muscarius, belladonna, cantharides, camphor, hyoscyamus, stramonium, and veratrum viride.

ACONITE

Aconite Fear, Restlessness

The predominant mental characteristic of aconite is fear. Hence, as we should expect, this drug has proved wonderfully effective in this disease. The cases that it controls are most

Bodily Anguish Very effective

desperate. Its array of symptoms, both mental and physical, are of a highly exaggerated type. Oversensitive to light, music, or noise, filled with delusions of ghosts and a multitude of nameless horrors, terrified by darkness or the approach of any person, the patient is continually in a state of abject terror. Racked by pain in every bone, muscle, and joint, burning up with heat, tortured by an unquenchable thirst, the patient, night and day, rolls from side to side on his couch of anguish. Such a group of symptoms, representing a picture of indescribable agony, would seem to demand something more than human means of relief; yet, in just such cases, aconite has often come to the rescue, speedily producing results nothing short of marvelous.

AGARICUS MUSCARIUS

Agaricus Wild frenzy Incoherent talk Tremor

Furious, fearless, menacing frenzy, causing the patient to injure himself and others, incoherent talking, passing rapidly from one subject to another, great excitement with ceaseless loquacity and exaggeration of the senses, together with delusions as to his own power, are the symptoms demanding agaricus.

In addition, there is often present a continuous tremor, which, while not apparent to the observer and only perceptible to the patient, produces an indescribable terror.

While not so frequently demanded as some of the other drugs, agaricus when indicated is exceedingly effective.

BELLADONNA

Belladonna
Great violence
Noisy, Dangerous

Belladonna is one of our sheet anchors in this disease, bearing some resemblance to aconite. Filled with delusions of every conceivable variety, intense mental excitement, at all times, prevails. While the delusions may be of a disagreeable character, they produce less terror, and fear is not so prominent a characteristic as in the aconite patient.

The belladonna patient is, however, much more violent, dangerous, and destructive; will bite, strike, or kick anyone who approaches, or destroy anything within his reach. Exceedingly noisy, his apartments, night and day, resound with songs, shouts, screams, and curses. While considerable fever may be present, it is not likely to be so general and may not be so intense as in the aconite patient.

The general bodily restlessness is also less marked and, while the cephalalgia may be more severe, there is not so much general physical pain.

CAMPHOR

Camphor

Violent rage; scratches, spits, bites, tears clothing, and foams at the mouth. Desires to kill

people. Talks, shouts, cries, and laughs. Intense fever, aggravated by mirrors or any glistening object. Worse at night, when alone, or in the darkness.

While camphor does not usually play a prominent part in mental therapeutics, still, it must not be forgotten in this disease when great fear and mental excitement are associated with extreme physical weakness and prostration.

CANTHARIDES

The characteristic indications for cantharides are great violence, with paroxysms of rage, and a desire to bite anyone within reach, tear the clothing with the teeth, and bark like a dog. With these symptoms of intense violence may also be associated an almost overpowering sexual excitement.

Cantharides
Paroxysmal violence
Desire to bite
Sexual excitement
Dysuria.

The symptoms are aggravated by the slightest touch or any shining object, like a mirror or a glass of water.

The eyes are bright, the pupils widely dilated, but the face is pale, yellow, and likely to be wrinkled with a constant frown and expression of suffering. With this group of symptoms dysuria is likely to be associated.

HYOSCYAMUS

Hyoscyamus may be occasionally demanded when there is great sexual excitement with a

Hyoscyamus

Sexual excitement Fear of poison

desire to uncover the person and a dread of poison that prevents the patient's taking food or medicine.

The delirium of this disease is, however, usually of so severe a character that hyoscyamus is of little use.

STRAMONIUM

Stramonium Most intense form of mental Excitement

No remedy is more frequently demanded than stramonium.

The keynote running through all its numerous mental symptoms is terror.

Stramonium is chiefly distinguished from aconite, belladonna, and cantharides by the intensity rather than the character of its symptoms. The excitement of stramonium is of the most exaggerated type and appears as a perfect frenzy. When aconite, belladonna, and cantharides are unavailing and the excitement seems continually to increase in intensity, we can turn with hope to stramonium, which seldom disappoints.

VERATRUM VIRIDE

Veratrum Viride High temperature, Rapid

Veratrum viride has few mental symptoms, but has often proven effective in this malady when the temperature was dangerously high, the pulse exceedingly weak and fast, and the respiration rapid and irregular. Its sphere of

action is limited to this stage of the disease, and as soon as the intense fever has been controlled it should be discontinued. *pulse and respiration*

B. Acute confusional insanity (amentia), hallucinatory insanity, hallucinatory confusion, paranoia dissociativa (Ziehen).

This psychosis is characterized by the rapid development of illusions and hallucinations, clouded consciousness and motor excitement.

ETIOLOGY

This disease most frequently occurs in persons with a bad family history and a marked insane diathesis. Its most common victims have been women in the prime of life, although cases occurring in early youth and between the fifties and sixties have been reported. The chief cause is exhaustion, produced by some acute disease, like typhoid fever, acute articular rheumatism, great loss of blood, or childbirth. Trauma, prolonged mental strain, mental or physical shock, or continued loss of sleep may act as an exciting cause. Although of rare occurrence abroad (Kraepelin estimating it at one-half to one per cent. of the admissions to hospitals), it is more frequently encountered in this country. *Insane diathesis* *Exhaustion, Strain*

SYMPTOMATOLOGY

The incubation stage is ordinarily short, and

Incubation short

usually after apparent convalescence from some febrile or other disease. During this time signs of nervous exhaustion appear. The patient is irritable, sleepless, or his sleep is disturbed by troubled dreams and he becomes causelessly frightened, suffers with headache, and is slightly confused and incapable of continued thought. Soon multiform hallucinations of sight, hearing, smell, and taste appear, with increased confusion and inability to recognize his surroundings. Outbreaks of excitement, with marked motor agitation, alternate with the periods of mental confusion, but the speech is limited to single words or meaningless broken sentences.

Hallucinations Delusions.

Persecutory hallucinations appear; he is being followed by detectives, or poisoned, or is afflicted with some direful malady. In other cases the hallucinations have a religious form; Christ, the Virgin Mary, and angels are seen. In still others the hallucinations are of an erotic character. Filled with continually changing delusions, one moment the patient is possessed of a devil, the next he communicates with the Deity, or, filled with terror, he frantically attempts to escape from the horrid shapes by which he is surrounded. A marked characteristic is the mental cloudiness of the patient, producing complete disorientation, neither his friends nor surroundings being recognized.

Confusion from brain Exhaustion

The mental confusion is owing primarily to the great exhaustion of the brain centers, the effects of the preceding fever or inflammation, and, secondly, to the overpowering hallucinations, which so absorb the attention as to make the patient oblivious of all that is occurring about him.

When the brain exhaustion has been less severe, the disease picture is less striking. The hallucinations, though vivid, are not so multiform and the mental obtundity is slight. The illusions and hallucinations are less complex. Voices, shrieks, pistol shots, and the ringing of bells are heard. Fearful shadows flit about the room, voices accuse him of murder, and predict his imprisonment or electrocution. The consciousness is less obscured and he can give a correct account of himself, colored, however, by the impression made by the hallucinations. The patients are quiet, apathetic, continually occupied by their hallucinations, pay little attention to their surroundings, are tractable, and give monosyllabic answers to questions. Later, delusions are developed out of their hallucinations.

Motor symptoms

Less frequently, as a result of their persecutory delusions, motor symptoms appear, manifested in their attempts to escape supposed impending dangers. They will move restlessly about the room, dodging from side to side to avoid the attacks of imaginary assassins, or will

provide themselves with weapons for defense against their supposed enemies. The larger number remain apathetic.

Paranoia

In the simpler form the hallucinations are limited to a few subjects continually repeated, and the condition resembles paranoia; but the delusions are not systematized and the patients do not attempt to defend them logically. A large proportion of these cases show the delusions and confusion for weeks or months, with varying alternatives of lucidity and exacerbations.

The character of the hallucinations, and sequent delusions, may remain unchanged for years, with gradually decreasing mental confusion, while the sense deceptions remain fixed but unprogressive.

The chief physical symptoms are disturbed sleep, anorexia, constipation, loss of weight, a slow pulse, subnormal temperature, and an increase of the deep reflexes.

Duration short

The disease usually reaches its height within two weeks. During the entire course short remissions and fluctuations are likely to occur. The majority of patients recover their full reason within a few months. Death is infrequent except from suicide. A few succumb to heart failure, sepsis, and phthisis.

DIAGNOSIS

Catatonia

Amentia is distinguished from the catatonic form of dementia præcox by its greater confusion and impairment of consciousness and memory, and its lack of genuine negativism, verbigeration, stereotypy, mutism, and mannerism.

Manic depressive Insanity

It may resemble the manic type of manic depressive insanity, but can be differentiated by its greater interference with consciousness and greater disturbance of apprehension. Its movements, during excitement, are slower and purposeless, and in their quiet intervals the patients are hazy and confused. Amentia may also occasionally resemble dementia paralytica, but lacks the characteristic physical signs of that disease.

TREATMENT

Rest Nourishment

During the acute stage, continued rest in bed should be enforced.

Hydrotherapy

Liberal quantities of easily digested nourishment must be administered by force if necessary. Hydrotherapeutic measures for the allaying of excitement must be applied. Careful nursing and constant watchfulness to prevent self-injury also are imperative. On account of the tendency to relapses, care must be taken that the patients are not subjected to any emotional shock during convalescence or until health is fully restored.

REMEDIES

The remedies must be selected according to the symptoms of each individual case.

Those which we have found most reliable are aconite, actaea racemosa, agaricus, alumina, ambra grisea, anacardium, arnica, arsenicum, baptisia, baryta carb., belladonna, bryonia, cuprum, digitalis, gelsemium, hyoscyamus, lachesis, nux vomica, stramonium, and veratrum album, given according to the following indications:

ACONITE

Aconite First stage Fear Hypersensitiveness

The aconite patient is excited, restless, uneasy, terrified by multitudes of fears and imaginations, with mind confused, with weakness of memory and inability for mental labor. He is hypersensitive, cannot bear light, noise, music. He is intolerant of pain, cannot bear to be touched, is changeable in mood, one moment gay, the next sad. Aconite is useful in the first stages of the disease.

ACTAEA RACEMOSA

Actæa Racemosa Insomnia Hallucinations of sight, talkativeness

Insomnia, hallucinations of sight, incessant talkativeness, changing continually from one subject to another. Cross, taciturn, pulse full and quick, eyes wild and staring, tremor scarcely visible but apparent to touch.

AGARICUS

Marked mental excitement, causing attempts to injure himself and others. Continuous incoherent talk. Disinclination to answer questions, inability to express himself. Changeable moods—one moment gay, the next sad. Tremulousness and muscular twitching.

Agaricus
Excitement
Incoherent talk
Changeableness
Tremor

ALUMINA

Apprehensive anxiety and vague fearfulness, mental confusion with loss of memory and inability to express his ideas correctly.

Aggravation of the symptoms in the morning on awakening.

Alumina
Fearfulness
Confusion

AMBRA GRISEA

Hallucinations of sight, sees diabolical faces about him. Slowness of comprehension with marked impairment of memory. Sleeplessness. Obstinate constipation. Aggravated by the presence of other people.

Ambra Grisea
Frightful hallucinations
Sleeplessness.

ANACARDIUM

Loss of memory. Dreamy condition of mind, dull, stupid, unable to converse on account of his paucity of ideas and lack of mental concentration. Hallucinations of hearing. Continual inclination to swear. Desire to commit suicide by shooting.

Anacardium
Loss of memory
Stupidity
Profanity

ARNICA

Arnica
Stupid, taciturn

Stupid, forgetful, taciturn. Anorexia. Thirst without fever. Dryness of lips and tongue, with brown streak through tongue and trembling of the lower lip.

ARSENICUM

Arsenicum
Restlessness
Exhaustion
Sees
Vermin
Worst cases

Great mental and physical restlessness. Intense mental anguish, causing attempts at suicide and self-mutilation. Hallucinations of sight. Sees vermin crawling over him. Great physical exhaustion. Useful in the most desperate cases, where death is imminent unless speedy relief is obtained.

BAPTISIA

Baptisia
Stupidity
Body in pieces

Confusion of ideas, cannot concentrate the mind. Indifference, stupor, falls asleep while being spoken to or while answering. Delusion that his body is in pieces and he cannot get the parts together.

BARYTA CARB.

Baryta Carb.
Forgetful
Weak-minded

Memory deficient, forgets what was just said or done, or what he was going to do or say. Irresolute, changeable, weakminded, childish.

BELLADONNA

Belladonna
Wild,
Pugilistic
or Stupid

Violent, wild, excitable, pugilistic, destructive, mind filled with changeable illusions, hallucinations and delusions or dull, stupid and sluggish. Sleep, disturbed or broken, or drowsiness with inability to fall asleep.

BRYONIA

Bryonia
Irritable
Confused

Irritability, dread and apprehension, forgetfulness with mental languor, confusion and indisposition to think.

CUPRUM METALLICUM

Cuprum
Delirium
Weak pulse

Weakness of mind with forgetfulness. Wild delirium associated with feeble, unequal, infrequent pulse, moist skin, and cold extremities.

DIGITALIS

Digitalis
Mental
weakness
Slow pulse

Dull, lethargic, with weakness of memory and great difficulty in concentrating the mind. General appearance of weakness and exhaustion accompanied by a slow, feeble pulse.

GELSEMIUM

Gelsemium
Confused

Mind dull, confused, incapable of continued thought or of making any positive decision. Drowsy, desires to remain quiet and have no one

Occipital pain

near him. Mental exhaustion often accompanied by a dull occipital pain, which may extend down the shoulders. General nervous and muscular prostration.

HYOSCYAMUS

Hyoscyamus Changeable delirium Sexual excitement

Mild, changeable delirium. Illusions and hallucinations of the various senses. Fear of poison, causing persistent refusal of all food and medicine. Sexual excitement. Much muscular twitching. Stupor disturbed by the slightest noise.

LACHESIS

Lachesis Loquacity Septicæmia

Great loquacity. Apprehensive, jealous, mistrustful, peevish, irritable, weakness of memory, mental confusion and incoherency, caused by ideas rushing too rapidly through the mind. Useful in cases produced by septicæmia.

NUX VOMICA

Nux Vomica Ugly, Obstinate

Irritable, cross, sullen, ugly, taciturn, obstinate, anxious with a desire to commit suicide, but afraid to die. Makes mistakes in speaking and writing. Mental dullness and confusion in the morning and after meals.

STRAMONIUM

Stramonium
Furious delirium, Frightful delusions

Furious delirium, terrified by fanciful delusions, noisy and incoherent. Converses with spirits and absent persons as if they were present, but does not recognize those about him. Clutches at imaginary objects in the air. Changeable moods, varying from taciturnity to furious raging violence. Sleeplessness or sleep disturbed by terrifying dreams.

VERATRUM ALBUM

Veratrum Album
Wild delirium, Great exhaustion

Wild, changeable delirium, accompanying excessive bodily exhaustion and threatened collapse.

CHAPTER VI

NEURASTHENIA

Divisions

Kraepelin places acquired neurasthenia or chronic nervous exhaustion among the exhaustion psychoses, separating it from congenital neurasthenia. Other authors have divided neurasthenia into cerebral or cerebrasthenia, spinal or myelasthenia, genital, acute, hystero and gastric neurasthenia. As the disease is usually encountered, the various forms are so mingled and confused that a differentiation of the different types may be impossible, nor is it necessary for practical purposes. We shall therefore present here a general description of neurasthenia, embracing all the different forms, simply emphasizing the fact that exhaustion agencies play an exceedingly important part in its etiology.

NEURASTHENIA (NERVOUS EXHAUSTION)

Neurasthenia is one of the most common of the functional diseases of the nervous system. It is especially prevalent in the large cities, where the strain of modern life is greatest. While under various names allusions are made to it in the earlier medical writers, it is only since the

description given by Beard in 1870 that it has held a prominent place as a disease entity. Since that time numerous treatises have been written upon the subject by authors in different countries until, today, it is one of the best known of the functional nervous diseases.

Beard in 1870

ETIOLOGY

The most important causative factor is heredity, the majority of the victims of neurasthenia revealing evidences of an unstable organization.

Heredity

A history of migraine or some nervous irritation is usually discoverable and in many cases marked physical or psychical stigmata of degeneration appear. While the inheritor of a sound nervous system may withstand unscathed the severest strains of modern life, those less fortunately endowed frequently succumb under comparatively easy burdens. Bouveret declares that "those predestined to nervous disorders may go through life without being attacked by a psychosis or grave organic malady, but they rarely escape neurasthenia." If the crises of puberty are withstood the strain of the climaxis or beginning senile involution not infrequently develops a train of asthenic symptoms.

Bouveret

The neurasthenic age ranges from eighteen to fifty-five, the greatest number of cases occurring between the twentieth and fiftieth years. Neu-

Between twentieth and fiftieth

rasthenic symptoms are, however, occasionally encountered in children of twelve or thirteen and even in the aged. The senile variety is usually associated with hypochondriasis and signs of degeneration of the nervous and vascular system.

Both sexes are liable to the disease, but the pure form is most frequently seen in males.

Races liable

Certain races are especially liable to the disease. The Hebrew, the American, the Frenchman, the Russian, and, in this country, the Irishman and Englishman are often numbered among its victims; the negro and German are less frequently afflicted with neurasthenia.

While most prevalent in dry temperate climates, it is not unknown to the tropics, and is often found in the West Indies and the republics of South and Central America.

City vs. Country

The unnatural exciting life of the cities, with its vices and numerous nerve strains, is much more conducive to the disease than the quiet life of rural communities.

Predisposing causes

Among the prominent predisposing causes may be mentioned defective education of children, failure early to learn self-control, lack of moral instruction and training of the judgment and will, and too strenuous forcing of the mental powers.

Exhaustive diseases

Severe maladies of infancy and childhood, various fevers, influenza, too frequent pregnan-

cies, and prolonged lactation may also produce nerve exhaustion in the constitutionally predisposed.

Intoxications

Intoxications from alcohol, tobacco, opium, cocaine, lead or other metallic poisons, by weakening and depraving the nervous system, may render it susceptible to the disease.

Exciting causes

Among the exciting causes, emotional disturbances, shocks, prolonged mental exertion, and anxiety and loss of sleep play an important part. Among night-workers, telegraphers, nightwatchmen, and compositors the disease is frequently encountered. Sexual excess and masturbation, especially in the young, are frequent contributory factors. Syphilitics are often neurasthenic. Traumata, cephalic injuries and shocks, the result of railway injuries, not infrequently entail neurasthenia.

Eye-strain, chronic middle-ear disease, nasal stenosis, chronic gastric disorder, and disease of the pelvis are other not infrequent causes.

Hereditary basis

Whatever the patent exciting causes, neurasthenias are mainly developed upon an hereditary basis. On account of the great variety of causes responsible for the development of the disease, a careful study of the etiology of each case is imperative if treatment is to be successful.

SYMPTOMATOLOGY

Key-note, irritable weakness

While the symptoms of neurasthenia are manifold, they bear so marked a resemblance to one another that a typical case is as easily recognizable as a case of other nervous diseases. The key-note of the entire ensemble is irritable weakness. Extremely hypersensitive, any excitement soon produces in the patient a sense of exhaustion, fatigue, and apathy. Mild depression of a hypochondriacal character prevails, based upon the physical sensations. All work, physical or mental, produces an inordinate sense of weariness. Tasks formerly easy are accomplished with difficulty. Devoid of originating power, a sense of mental incapacity pervades the mind, which deepens the depression. A condition of fear and general apprehension is usually present. This may be indefinite, as of some impending disaster, or assume a definite shape. The patient fears that he is losing his mind, or is acquiring some incurable disease, or will be paralyzed, or

Fears

is about to die. These fears may so overwhelm the mind as to make the person absolutely miserable. These obsessions are numerous and varied and so common that they have been given a distinct nomenclature. We have agoraphobia, fear of being in open spaces; claustrophobia, fear of closed spaces; anthropophobia, fear of men;

monophobia, fear of solitude; pathophobia, fear of disease; zoophobia, fear of animals; and hundreds of other fears. Impelled by these fears the patient may refuse to leave his apartments unless under guardianship. Another frequently disturbing symptom to refined and cultivated persons is the impellant inclination to mix blasphemous and filthy expressions in conversation, which are with the greatest difficulty repressed.

Delire du toucher et du doute

The *delire du toucher et du doute* is also frequently present. Under the former, the patient has an imperative desire to touch certain objects, to investigate the business of others, or to read private letters, which tendencies are liable to involve him in serious difficulties. Others are continually disturbed by fears of contamination from riding in public conveyances, from shaking hands, or from touching certain substances.

When disturbed by the *folie du doute* the mind is harassed by reasonings and questions concerning every conceivable subject. Night and day the victim philosophizes and puzzles himself with endless unsolvable mental equations and torments everyone about him by his endless unanswerable queries.

Continual mental agitation

Incapable of making any positive decision, faulty in memory, devoid of judgment and will, timorous and disquieted by his numerous fears, doubts, and anxieties, a constant state of mental

agitation exists, rendering active mental or physical labor an impossibility.

Abnormal sensations

Numerous abnormal sensations in the head are complained of, such as a weight in the sinciput or a band constricting the vertex or temples. Slight vertigo may be present, with ringing in the ears, muscæ volitantes, and hyperesthesia of the scalp. Actual pain is also frequently experienced, especially in the occiput and neck, and extending down between the shoulders.

Insomnia

Insomnia is one of the most troublesome symptoms. Two forms are especially frequent. In the first the patient upon retiring soon falls asleep, but, after two or three hours, suddenly awakens and for the remainder of the night tosses restlessly about, arising in the morning totally unrefreshed and enervated. Others, for hours, lie awake troubled by their imperative ideas and endless nervous physical sensations, their only refreshing sleep coming towards morning, at the time when they should begin their daily duties. In many cases, the nocturnal rest is disturbed by unpleasant, terrifying dreams, from which the patients awaken in terror. Robbed of his natural sleep and rest by some one of these causes, the neurasthenic usually arises from his bed, in the morning, tired and unrefreshed and incapable of performing his daily duties.

Ocular troubles

Ocular troubles are also of frequent occurrence. Transient diffuse conjunctival congestions often are apparent in the early morning, which disappear after the morning meal.

Various pupillary phenomena appear, varying in different individuals. The most common anomaly is a moderate dilatation of the pupils with slow reaction to light and accommodation. Less frequently, a modern dilatation of the pupils occurs with rapid reaction to alterations of light and shade, the "jumping pupil" as it has been designated. The degree of pupillary widening often indicates the amount of exhaustion. Muscæ volitantes are often present and may persist for years. Ophthalmoscopic examinations are usually negative.

Neurasthenic Asthenopia

The chief and most important ocular trouble is the neurasthenic asthenopia, the eyes easily becoming fatigued by writing and reading, and, in the most aggravated cases, by simple exposure to light on the streets. If the use of the eyes is persisted in, neuralgias, sensations of tension in the eyeballs, and visual confusion may be experienced. This condition may become so aggravated as to necessitate seclusion in a dimly-lighted or even dark room. This asthenopia may be transient, or last for months or during the entire lifetime of the patient.

Like perversions of innervation may be appa-

Perversions taste, smell, hearing

rent in the other special senses of taste, smell, and hearing. The most frequent are the auditory hyperesthesia. Buzzing, whizzing, the ringing of bells or the sound of a sea-shell in one or both ears are frequent aural symptoms and may cause the greatest annoyance to the sufferer, not infrequently disturbing the sleep at night.

Pain in back

Most neurasthenics complain of pain in the back and in many it is the cause of their most intense suffering. This is most common in women and is usually aggravated by menstruation. The intense aggravation from motion causes many to assume a supine position, which they are with difficulty induced to change. These pains often induce in the minds of the patients a belief that they are suffering from rheumatism, kidney disease, tabes, or some other organic disease of the cord.

Vertebral sensations

Vertebral sensations are numerous and varied. Those most commonly met are pains in the lower cervical lumbar and sacral regions. Sensations of heat, burning, formication, of coccygodynia, or of general hyperesthesia of the entire spinal column are also common. This sensitiveness may be intensely exaggerated over individual vertebræ or upon the skin lateral to the column. This sensitiveness in many cases is so severe that the slightest touch or even the pressure of the clothing may be intolerable. In other cases this sen-

sitiveness may not be elicited by pressure, but is apparent after prolonged standing or by enforced movements of the spinal column. These pains may be transient, but are usually sources of discomfort for years.

Muscular weakness

Perhaps the most common and characteristic symptom of neurasthenia is neuro-muscular weakness. All neurasthenics complain of fatigue. Any mental or physical effort produces a sensation of exhaustion entirely incommensurate with the exertion put forth. The patient is always tired. After seven or eight hours of sound sleep the patient either awakens unrefreshed or a few minutes' exertion will exhaust all his energy, and for the remainder of the day he is incapacitated for any work. This muscular weakness may not, at first, be demonstrable by the dynamometer, but if the tests are several times repeated the hand muscles may show slight loss of power. This motor weakness is usually general and rarely limited to one side of the body or the lower limbs, is unattended by atrophy, and never increases to paralysis.

Vibratory and fibrillary tremor

A rapid vibratory tremor and a fibrillary tremor are also frequently observed; the orbicularis palpebrarum and oris and the first interosseous muscle being the muscles most frequently involved. A tremor of the eyelids also may appear if the patient stands with his eyes closed.

Exaggerated reflexes

The deep reflexes of the knees and arms are often exaggerated. A slight inconstant foot clonus may at times be apparent. All other signs of muscular rigidity are absent.

Stuttering Difficulty in speaking

Stuttering, at times, accompanies neurasthenia, but the speech is seldom affected. The patient may complain of difficulty in finding the right word in speaking, or a confusion in words and a tendency to displace or drop letters in speaking or writing may occasionally occur.

Vasomotor disorders common

Vasomotor disorders are not uncommon. Coldness of the hands and feet, flushes of the face alternating with pallor, and throbbings in various parts of the body, may cause great annoyance.

Functional heart disturbances

Functional heart disturbances are of frequent occurrence. Attacks of palpitation, tachycardia, or a sensation as if the heart stopped or of intermission of the beat are frequent causes of complaint. These attacks are liable to produce great mental perturbation and form the basis of persistent fears. Heart murmurs are rare, although a systolic murmur may appear at the height of an excitement. Vascular murmurs are also present at times.

Digestive disorders frequent and varied

Digestive disorders are exceedingly common. In the majority of cases the disturbance is gastro-intestinal, although duodenal indigestion is not rare. In the milder forms the physical condition

is slightly affected. In the graver forms marked loss in the physical weight may occur. In the gastric types the symptoms appear shortly after eating; in the intestinal varieties, after an interval of an hour or longer. Immediately after the ingestion of food a sense of relief may be experienced, which is soon followed by great discomfort with a sensation of weight uneasiness, great distension, and the eructation of gas. After the food has passed into the bowel partial relief is obtained, which may be followed by disturbance in the small intestines. Borborygmi may then begin, so severe that the patient may be obliged to shun society. Severe colicky pains may occur, which are relieved by the passage of gas per rectum. These digestive disturbances may follow each meal, depriving the patient of all enjoyment of life. In the atonic neurasthenic dyspepsias a lack of hydrochloric acid is found in the gastric juices, to which the active fermentation may be ascribed. Obstinate constipation is a common accompaniment of nervous dyspepsia, the feces when expelled being hard scybala or small cylinders. Diarrhœa may replace the constipation, attended by slight emaciation.

Nutrition disturbed

In the graver form of atonic dyspepsia the symptoms of the milder are intensified. Every meal, whatever its character, is followed by fermentation in the stomach and intestines. In this

form nutrition is markedly disturbed, a decrease in weight ensues, and the emaciation may become extreme. Severe forms of atonic dyspepsia may also be induced by any emotional excitement, great joy, grief, or anger.

Intestinal disorders caused by excitement

Acute attacks of intestinal indigestion also are common in neurasthenics. These attacks begin with nausea, vomiting, and frequent watery diarrhœic discharges.

Emotional disturbances or the excitement of any new undertaking, like a journey, or of singing or speaking in public, may produce a nervous diarrhœa or an attack of vomiting.

"Mucous enteritis"

The most serious bowel accompaniment of neurasthenia is known as "mucous enteritis." This occurs but rarely, and usually in exhausted women between twenty-five and forty. This is one of the earlier symptoms of nervous weakness. Its characteristics are a painful colicky diarrhœa with the passage of tubular casts or portions of casts, which diarrhœa alternates with constipation. These casts are albuminous in character, the product of the decomposition of the epithelial cells of the intestinal walls.

Appetite fitful

The appetite of the neurasthenic is irregular and fitful. While some patients are inclined to overload the stomach, the majority take an insufficient quantity of food.

Difficulty in swallowing frequently accom-

panies deglutition, at times severe enough to convince the patient that there is some obstruction in the œsophagus.

Difficult deglutition

A not infrequent digestive symptom is the neurasthenic hunger. This consists of a feeling of goneness and emptiness in the stomach with an urgent craving for food, a few hours after a full meal, which, if not immediately satisfied, causes a sensation of intense motor weakness, with vertigo and often fainting attacks. These symptoms are all immediately removed by the ingestion of food.

Neurasthenic hunger

The respirations, temperature, and blood of the neurasthenic are usually normal, although anæmia may exist in certain cases.

Respiration, temperature and blood usually normal

No one case exhibits all of the foregoing symptoms. Each case is distinct in itself. The disease presents great variations. One neurasthenic suffers chiefly with pain in the head, another with pain in the stomach; or insomnia or morbid fears may be most prominently in evidence. Careful questioning will, however, reveal the true nature of the disease. The symptoms may be periodic or intermittent in their appearance. The majority are more severe in cold than in warm weather.

Each case individual

PATHOGENESIS

Neurasthenia is mainly the result of inherited

Result of inherited nerve weakness

nerve weakness. On account of this inheritance the nervous system is rendered more vulnerable to depressing agencies, whether they be poisons, infections, shocks, injuries, or particular nerve strains.

No definite material basis

Autopsies reveal no definite material basis for the disease. While certain discoveries as to changes in cells and the blood constituents have been claimed by different observers, no definite pathology has as yet been established.

DIFFERENTIAL DIAGNOSIS

The diseases with which neurasthenia is most liable to be confounded are dementia paralytica in its early stages, cerebral syphilis, tabes, melancholia, hypochondriasis, and hysteria.

Differentiated from Dementia Paralytica by pupils, age, mental symptoms

DEMENTIA PARALYTICA

The three characteristics by which neurasthenia can be distinguished from dementia paralytica, are the condition of the pupils, the age of the patient, and the mental symptoms.

Pupils Neurasthenia slightly affected, Paresis abnormal in ninety

In neurasthenia the pupils are ordinarily moderately dilated, or if widely dilated react readily to light, accommodation consensual, and sympathetic stimuli; the "attention reflex" is normal and the outline of the pupils shows no irregularity. In dementia paralytica some abnormality of reaction is present, at an early stage, in at

least ninety per cent. of all cases. The pupils may be of normal size, but reactions to light and consensual stimuli are sluggish. The pupils may be widely dilated, too small, irregular in outline, or unequal and non-reactive; or the reaction may be slow, or the reaction at times may be different in each eye. At an early stage of the disease there is a diminution or loss of the "attention reflexes."

per cent. of cases

The age of the patient, at the time of the attack is also an important diagnostic factor. In neurasthenia the majority of cases occur before the fortieth year, while the mean average of the paretic is forty-one.

Age Neurasthenic before forty, Paretic average forty-one

The mental state of the two diseases differs widely. While the neurasthenic may complain of a failing memory, his lapses are easily corrected and are slight compared with those of the paretic, who is ignorant of this weakness and may deny its existence. The numerous phobias and hypochondriacal anxieties of the neurasthenic do not appear in the paretic, who always claims that he is perfectly well.

Memory Neurasthenic good, Paretic markedly impaired

The changes in the character and habits usually marked in the paretic do not occur in the neurasthenic. The first suspicion of the approach of paresis may arise from the abrupt change in the victim's morals. Previously honest, temperate, and upright, he suddenly becomes

Character and habits changed in Paresis, unchanged in Neurasthenia

dishonest, intemperate, and dissolute. No such lapses occur in the neurasthenic.

While loss of sexual power may occur in the neurasthenic, complete impotence appears in the paretic following the most intense sexual excitement.

Intelligence undisturbed in Neurasthenia, enfeebled in Paresis

The intelligence of the neurasthenic is rarely disturbed. In the paretic enfeeblement of intelligence is one of the earliest symptoms, and the judgment is progressively weakened as the disease advances.

Voice and speech changes of Paresis lacking in Neurasthenia

The voice and speech changes so prominent in paresis also are lacking in neurasthenia. While the voice of the neurasthenic may be lowered and the pronunciation slow and uncertain, he reveals none of the characteristic jerkiness and thickness, with elisions of syllables, of the paretic. The tremulousness of the lips and tongue so apparent in paresis also is absent in neurasthenia.

Difference in handwriting

The handwriting also differs markedly. The neurasthenic may omit words and syllables and make mistakes in the use of words, but he readily corrects his errors, which the paretic cannot do even if his attention is directed to them, and he usually denies the existence of any mistake.

Temperature

The rise of temperature common in dementia paralytica does not occur in neurasthenia.

Convulsions

Epileptiform and apoplectiform attacks, so common in paresis, do not appear in neurasthenia.

CEREBRAL SYPHILIS

Two classes Syphilitic Neurasthenia

Two classes of syphilitic patients are encountered in which neurasthenic symptoms appear.

First class nerve weakness owing to virus

In the first the weakened nerve power is owing directly to the virus. These patients are sleepless, emotional, incapable of any continued muscular exertion; they suffer with pains in limbs and back and with a cephalalgia which increases in severity as the day advances, becoming almost unendurable at night, and which is only relieved by antisyphilitic remedies.

Second class Neurasthenia in persons who have previously had Syphilis

In the second class we have simply neurasthenia occurring in persons who have previously had syphilis. In these patients, aside from the mental impression caused by the knowledge of the previous existence of the disease and the effect on the general nutrition, the syphilis is not responsible for the asthenic symptoms.

TABES DORSALIS

Tabes Dorsalis usually easily recognized by difference in physical signs

The only variety of neurasthenia which could be confounded with tables dorsalis is the spinal, and this is not likely to occur. While in spinal neurasthenia pains in the lower limbs, gastro-intestinal crises, difficulty in locomotion, weakness of the legs, loss of virility and spermatorrhœa, and even the Romberg symptom may occur, the absence of oculo-motor symptoms,

atrophy of the optic nerves, diminution of the deep reflexes and anesthetic patches on the soles of the feet and skin of the legs, will clearly reveal the absence of any cord lesion.

The other mental diseases with which neurasthenia is most frequently confounded are melancholia, hypochondria, and hysteria.

MELANCHOLIA

Distinguished from Melancholia

The lack of delusions and hallucinations and its characteristic obsessions and phobias should readily distinguish it from melancholia.

HYPOCHONDRIA

Hypochondria Changeable symptoms, hereditary taint, signs of degeneration, less physical weakness

It may at times closely resemble hypochondria, but the symptoms of the hypochondriac are much more changeable and more minutely detailed than are those of the neurasthenic. The hypochondriac has also, usually, a history of hereditary taint and shows somatic signs of degeneration. The hypochondriac also lacks the physical weakness so characteristic of neurasthenia.

HYSTERIA

Hysteria Different mental state, Physically stronger

In the minor forms of hysteria the patient is bright and active, often gay and cheerful, has none of the head symptoms and characteristic paresthesias of neurasthenia, sleeps and eats

well, and is physically vigorous. The emotional crises, the globus and the clavus pains of hysteria, also are absent in neurasthenia.

Emotional crises, Globus and clavus pains

COURSE AND PROGNOSIS

Chronic disease

Neurasthenia is essentially a chronic disease. While it may develop suddenly as the result of accidents or shocks or after some acute infectious fever, it usually comes on gradually and lasts from one to seven or eight years. The course varies greatly in individual cases. The patient often improves for weeks and then a remission occurs and this forward and backward movement may go on for months. Complete restoration often takes place, but greater care of the health is necessitated in the future than previous to the attack. On account of the great attention which neurasthenics are obliged to pay to their health they often live to old age.

TREATMENT

Chief aim restoration of nerve power

The chief aim in the treatment of neurasthenia must be the restoration of the weakened nerve power. Each case must be studied by itself and the treatment adapted to its individual demands. All sources of reflex irritation, like eye-strain, rectal trouble, or sexual irritants, such as a tightly-hooded clitoris or constricted prepuce, should be removed before a regular system of treatment

is begun. The habits of the patient must be investigation not only as regards masturbation, excesses in venery, smoking, stimulants, and the taking of narcotics, opium, cocaine, ether, or any drugs of the coal-tar series, but as to times of meals and the character and quantity of food taken.

Moral, Hygienic, Dietary, Medicinal

From the nature of the disease the treatment should be divided into moral, hygienic, dietary, and medicinal.

MORAL

Moral treatment of highest importance

No part of the treatment is more important than the moral. Full of fears and doubts of every description, often unable to decide the simplest question, the patient needs the guiding counsel of the physician in all the details of life. The physician must be able to inspire absolute confidence in his ability to cure or all his efforts will be fruitless. However foolish the fears and senseless the symptoms, the patient must find in the physician a sympathetic listener and wise counselor. To retain the patient's confidence and control her thoughts and actions and still not feed the disease, is often the physician's most difficult task; but that task must be accomplished if he expects to achieve success. The physician that is lacking in sympathy or devoid of positive moral firmness cannot succeed in neurasthenia.

Often a patient is more benefited by positive assurance that her case is not hopeless and that recovery is certain than by the drugs administered.

HYGIENIC

Hygienic treatment

All the surroundings of the patient should be carefully considered. The drainage, the ventilation of bedrooms, and the drinking water should be investigated. Baths regulated to the idiosyncrasies of the individual case should be insisted upon. To some neurasthenics a cold sponge, or a needle or plunge bath in the early morning, is exceedingly bracing; in others such baths produce exhaustion, and lukewarm or hot baths are required. The warm bath at night promotes sleep in some cases, while in others it causes cardiac throbbings and unpleasant sensations in the head, and disturbs sleep. A choice may not be able to be made until after experimentation. The effect upon the weight produced by bathing must be carefully noted.

Suitable climate important

The influence of climate also must be observed. For some neurasthenics a high altitude, for others a residence by the sea, is most beneficial. Many city residents derive great benefit from a removal into the country, where they are freed from the constant noise and din of the streets and can remain most of the time in the open air. A long

sea voyage has often been a great aid in restoring the lost nerve force. The daily routine should be carefully laid out, so that every hour has something of interest and service to the patient. This tends to increase the weakened will-power and prevent the mind from dwelling continually upon the bodily ailments.

DIETARY.

Proper diet an absolute necessity

The diet of the patient is of the highest importance. The depleted nerve reserve and the general weakened physical condition demand a surplus of food. The majority of patients require food in moderate quantities, at short intervals varying from two and a half to four hours. On account of the frequent occurrence of dyspeptic disorders, a careful selection of food is necessitated. Foods requiring little digestion—milk, koumiss, raw eggs, or eggnogs—should at first be administered. Gradually, to this diet may be added moderate amounts of fresh beef, lamb, chicken, turkey, fish, bone marrow, and fresh vegetables excepting potatoes, and graham and whole-wheat bread. Fruits of all kinds, except bananas and strawberries, may be allowed. Liberal quantities of pure water should be taken between meals. Tea and coffee should be prohibited, but chocolate, cocoa, and broma may be allowed. Malt extracts, in doses of two to four

ounces, aid in the digestion of starchy foods and help nutrition. A glass of hot water upon first awaking in the morning and a half-hour before meals may prove helpful in promoting secretion. Hot malted milk, hot broth, or cocoa taken just before retiring may prove useful in promoting sleep, but does not agree with the patient in all cases. Pure olive oil, in doses ranging from a teaspoonful to two tablespoonfuls three times daily, also may prove of great service.

THERAPEUTIC MEASURES

Rest, massage, forced feeding

Rest is of the highest importance in all cases. In the severe types it is often absolutely necessary to remove the patient from home and the unwise sympathy of friends, and place her under the care of a nurse, who should have complete control, subject only to the orders of the attending physician. In these cases the Weir Mitchell treatment, in full or in a modified form, is of the greatest value. This treatment consists of rest in bed, complete isolation, forced feeding, massage, and electricity. When massage is given, and it should be in all cases confined in bed, the best time for the administration is in the evening after the patient has retired for the night. Such massage often proves a great aid in obtaining a good night's sleep. The masseuse chosen should be one who is strong and vigorous and whose

touch is agreeable to the patient. The failure of massage treatment is often owing to the masseuse and not the system. Some operators irritate the patient, and when this occurs others should be tried, until one is found capable of accomplishing the desired result. If such a one cannot be obtained, the massage should not be employed.

Electricity

Electricity, either faradism, galvanism, or electric baths, is a valuable adjuvant to massage in many cases. Its effects should be carefully watched, and unless it appears to be beneficial it should be discontinued.

Outdoor exercise

As the patient's strength increases, short walks, rides, or drives should be advised or outdoor sports may be encouraged, care always being taken that the strength is not overtaxed. After any outdoor exercise the patient should lie down for a short time.

Partial rest

In mild cases where entire withdrawal from business seems impossible, a rest for a part of the day may enable the patient to regain his former vigor. In all cases a short rest, if not more than a half-hour after luncheon, is of great benefit.

MEDICAL TREATMENT

Care necessary to prevent drug habits

No class of patients are more desirous of taking drugs than neurasthenics. Filled with hypochondriacal miseries of every description, they

rush from one physician to another, clamoring for immediate relief. Not content with the remedies regularly prescribed by competent medical men, they are prone to supplement these with every quack nostrum which they may see advertised. On account of this tendency great care should be exercised, lest they become addicted to some drug habit which, once established, it is almost impossible to cure.

In selecting the indicated remedy, careful analysis of the mental and physical symptoms is necessary. While any remedy in the materia medica, if called for by the totality of symptoms, should be prescribed, we shall give the indications for only those most frequently demanded.

ACONITE

Aconite
Fears
Efficacious

This remedy is frequently useful in combating the numerous phobias of neurasthenia. No drug has produced a greater variety of fears. Fear of death, darkness, noise, music, people, or going upon the streets, or into crowded assemblies has been experienced by numerous provers. A fear, frequently distressing in neurasthenia, of entering a trolley-car or a railroad train, we have many times removed by aconite. An indescribable vague indefinite anxiety as to some impending disaster also has often disappeared under the influence of this drug.

A persistent trial of this remedy will prove its efficacy when the disease presents the characteristic symptoms just enumerated.

ACTÆA RACEMOSA

Actæa Racemosa Sufferers from Neuralgia and Uterine Disorders

Desire for solitude, fear of death or of becoming insane.

Great sensitiveness in the cervical vertebræ, especially the lower. Pain in the occiput, running over the head into the eyes. Adapted to sufferers from neuralgia and uterine disturbances.

AGARICUS

Agaricus Sensitiveness of spine, muscular twitching, paresthesiæ of skin

Useful in cases excessively troubled by shooting and burning pains and sensitiveness of the spine, twitching of the muscles, and paresthesiæ of different portions of the skin.

ANACARDIUM

Anacardium Anxiety, fear, forgetfulness the result of excessive mental strain

Anxious and apprehensive of future misfortune, despair of recovery, fear of paralysis and death; fearful when walking in the open air and if anyone approaches; imagines that he is surrounded by enemies; forgetfulness and general failure of memory, with inability to concentrate the mind.

Distress in stomach relieved while eating, worse afterward.

This remedy is frequently useful in neurasthenia produced by excessive mental strain, with brain fag and complicated by nervous dyspepsia.

ARGENTUM NIT

Argentum Nit. Fears, nervous dyspepsia, much gas Frequently indicated Effective

Apprehensive of some serious illness; fear of dying when left alone; afraid to walk upon the streets lest he may fall down in a fit or lest the high buildings may fall down upon him. Afraid of going upon any high place lest he may throw himself down; apprehension when going into any public assembly.

Often indicated in neurasthenia, complicated by nervous dyspepsia, characterized by the formation of volumes of gas, which are expelled with violence and accompanied by vertigo.

ARSENICUM ALBUM

Arsenicum Album Great physical exhaustion attending mental symptoms

Fear of being alone, of disease, of death, of committing murder or suicide.

Useful when there is great physical exhaustion attending the mental symptoms frequently complicated by serious gastric disturbance.

ASAFŒTIDA

Asafœtida Adapted to hysterical nervous dyspeptics

Apprehensive of dying, irritable, fickle, hysterical. Great collection of flatus that accumulates in the abdomen and presses up against the lungs, producing oppression of breathing.

Adapted to hysterical neurasthenics subject to severe attacks of nervous dyspepsia.

BARYTA CARBONICA

Baryta Carb. Especially indicated in weak-minded cases

Anxious and solicitous about the future; averse to strangers and company; afraid to walk upon the streets; dread of men; startled by the least noise; irresolute, unable to make a decision; memory defective.

BELLADONNA

Occasionally indicated when signs of cerebral congestion are prominent, attended by hypersensitiveness of the senses and sleeplessness.

BUFO

Bufo Shyness, fears resulting from masturbation or sexual disease

Aversion to strangers, anxious; easily frightened; longs for solitude, yet fears to be alone; fear of disease, animals, and death.

Useful when the disease has been caused by masturbation or disease of the sexual organs.

CALCAREA CARBONICA

Calcarea carb. Usually selected from its constitutional symptoms

Very melancholy and depressed; great anxiety and palpitation; fearful and apprehensive of some impending disaster, fear of fainting in the street which prevents her going out of doors; fear of being alone, of death, insanity or some organic disease; startled by the least noise;

frightful dreams, awakening with a start with great palpitation of the heart and inability to free herself from the impression of the dream. Great fear and anxiety at night.

Mental symptoms are usually associated with the characteristic constitutional symptoms.

GELSEMIUM

Gelsemium Dull, stupid, sleepy, vertigo; pain base of brain; Frequently indicated; Reliable

Gelsemium is one of our mainstays in the treatment of neurasthenia. The gelsemium patient is dull, stupid, sleepy, unable to concentrate the mind, is subject to attacks of vertigo and unable to make any decision. There is a continuous dull ache at the base of the brain. Entirely lacking in self-confidence, the patient is unable to sing or speak in public, although he may have been accustomed to do so all his life. Any sudden emotion of joy or sorrow will bring on a diarrhœa or an attack of indigestion.

No other remedy is more frequently indicated or more often curative.

IGNATIA

Ignatia Chronic worry

Fear of some impending misfortune, of thieves, of disease, of things coming near, startled by the least noise.

Helpful to neurasthenics who are by nature chronic worriers or have suffered some great grief.

KALI CARBONICA

Fear of going into a crowd, of being alone, of disease, of dying; intolerance of human voice; easily frightened; starts when touched; depressed, tearful, anxious, irritable, fretful.

KALI PHOSPHORICUM

Kali phosphoricum Cases caused by mental overwork

Anxiety and causeless nervous dread, despondency regarding business and pecuniary matters; disinclination to converse or meet people; looks on the dark side of everything; dread and oversensitiveness to noise; undecided and changeable; effects of fright or grief; fear, sleeplessness; restlessness and suspicious, fretful, ill-tempered; night terrors; brain fag from overwork with loss of memory; nervous, easily startled.

Useful in neurasthenia from excessive mental labor.

LILIUM TIGRINUM

Lilium tigrinum Neurasthenia attended by acute uterine and ovarian disorders

Fear of some incurable internal disease, of becoming insane; aversion to being alone; hurried feeling of imperative duties and inability to perform them.

Curative in neurasthenia accompanied by acute uterine and ovarian disorders.

LYCOPODIUM

Lycopodium Neurasthenia with intestinal indigestion

Dread of men, of solitude; fearful when walking in open air, easily frightened by least noise, indecision.

Usually associated with characteristic symptoms of digestive organs.

MOSCHUS

Moschus Fainting hysterical neurasthenics

Fear of death, talks only of dying, irritable, cross, scolding; suffocative attacks from closure of the glottis or cramp of the chest. Hysterical attacks with blueness of the face and foaming at the mouth. Coldness and tremulousness of the body, with fainting spells and copious urination. Vertigo. Palpitation of the heart.

Indicated in neurasthenics subject to severe hysterical attacks and prone to fainting upon the slightest provocation.

PHOSPHORUS

Phosphorus Much nervous exhaustion

Anxious, restless, irritable, startled by the slightest noise. Fearful of death, of the future, of being alone, aggravated in the evening or during a thunderstorm.

PICRIC ACID

Picric acid Intense mental and physical exhaustion

Great sense of mental and physical exhaustion. Sexual excitement.

PULSATILLA

Pulsatilla Neurasthenics of the mild, weeping type, subject to uterine disease

Fear of ghosts, men, the dark, death, becoming insane, going into a crowd. Depressed and lachrymose.

Adapted to neurasthenics of a mild disposition, with dyspeptic symptoms, uterine disease, and sufferers from leucorrhea.

RHUS TOXICODENDRON

Rhus tox Rheumatic diathesis

Great apprehension at night, cannot remain in bed; fear of death, of impending disaster, of going into a crowd; anxiety worse in the house, better in the open air; great restlessness relieved by motion.

Especially beneficial where there exists a rheumatic diathesis.

SEPIA

Sepia Women exhausted by chronic uterine disease

Fear of being alone, of persons, when driving in the open air; of starvation; as to the outcome of the disease. Sensitive to the least noise.

Neurasthenia caused by some chronic debilitating uterine disease.

SPIGELIA

Spigelia Functional

Anxious, solicitous about the future. Afraid of pointed things, as pins or needles.

Usually associated with functional or organic disease of the heart. *or organic heart disease*

SPONGIA

Fear of death, of some impending disaster. Starts at every noise; awakens with fear and terror.

STRAMONIUM

Fear of dark, being alone, falling water. *Stramonium Seldom required*

This remedy plays a minor part in neurasthenia, but at times is useful in removing fears.

ZINCUM METALLICUM

Beneficial in cases troubled with dull aching in last dorsal or first lumbar vertebræ with excessive sensitiveness to touch. Pains are aggravated by sitting, relieved by walking. *Zincum metallicum Aching and sensitiveness of dorsal and lumbar vertebræ*

Dr. Edward Fornias, of Philadelphia, Pa., presents in the Hahnemannian Monthly, Sept., 1908 (pages 666 to 685), an excellent article on "Traumatic Neurasthenia." The remedies which he recommends and their indications are as follows:

"For the indecision we can study with profit the following remedies: Puls., Ignat., Laches, Nux v., Petrol., Alum., Arsenic, Baryta c., Calc. c., Nat. mur., Cham., China. Cuprum, Fer- *Indecision*

rum, Helleb., Jodium, Kali c., Mag. mur., Mezer., Sulphur, Rhus tox., Tarax.

Despondency

"For the despondency we have to look into the pathogenesis of Aconite, Aurum, Pulsat., Pal. c., Ignatia, Laches., Sulphur, Verat., and Valer; or of Silica, Sepia, Rhus tox., Platina, Arsenic, Arnica, Gels., Nux v., Nat. mur., Nat. carb., Hyosc., Graph., Lycop., Helleb., and Ruta. and Staph.

Apathy

"For the apathy and indifference: Arnica, Hyosc., Phos. ac., Stram., Ignat., Baryt. c., Bellad., Calc. c., Sepia, Silica, Arsenic, China, Helleb., Opium, Staph.

Fears

"For phobias (morbid fears): Aconite, Arnica, Arsenic, Actea, Bell., Calc. c., Opium, Pulsat., Baryt. c., Laches, China, Phosp., Platina, Sepia, Gelsem., Stram., Sulphur. Fear of death: Aconite, Arsenic, Platina, Gelsem., Apis, Bellad., Cann. ind., Helleb., Laches, Mosch., Coffea, Phosph., Hyosc., Actea r., Nit. acid, Hepar, Ipec., Rhus tox. Of public places: Arnica, Aconite. Of a crowd or of crossing busy streets: Aconite, Arnica, Aurum, Pulsat., Nat. mur., Arsenic. Of being touched or struck by passing persons: Arnica. Of accidents and misfortune: Aconite, Arnica, Calc. c., Cycla., Glono., Graph., Sulph., Ferrum, Mag. c. Of loss of reason: Calc. c., Cann. Ind., Aconite, Alum, Lilium, Platina and Tarantula hisp. Of closed places: Arsenic, Carbo. v., Sulphur, Hydroc. ac., Pulsat.

Obsessions

"For fixed ideas (obsessions): Aurum, Ignat., Bellad., Anacard., Hyos., Cicuta, Laches., Cuprum, Stram., Silica, Pulsat., Thuja, Verat., Cann. Ind., Sulphur, Aconite. For hypochondriac ideas: Calc. c., Ignat., Nux v., Laches., Nat. mur., Sulphur, Pulsat., Aconite, Arsenic, Aurum, Bellad., Bryon., Anacard., Chamo., China, Phosph., Caust., Mosch., Platum., Phos. ac., Rhus tox., Sepia, Staph., Tinc.

Emotional displays

"For emotional displays: Bell., Hyosc., Stram., Pulsat., Coffea, Aurum, Calc. c., Ignat., Laches., Nux v., Bryon., Opium, Platina, Valer., Verat., Alb., Angust., Coni., Mosch., Phosph., Sulphur, Anacard., Sepia, Silica, Viola, Gelsem., Senega. Of the lachrymose type: Puls., Nat. m., Sulphur, Ignatia, Aurum, Lycop., Sepia, Calc. c., Platin., Phosph. With irritability and impatience: Cham., Bryon., Hepar., Gels., Puls., Kali. c., Lycop., Sepia, Nux v., Hyosc., Coccs., Actea Senecio, Cypred., Silica, Phosph., Sulph., Nat. mur., Nit. ac. With variable mood: Ignat., Puls., Crocus, Platina, Aconite, Bellad., Aurum, Sepia, Mosch., Valer., Stram., Alumen, etc.

Pathological fatigue

"As stated above, the pathological concept of neurasthenia is summed in the idea of pathological fatigue, and all the psychic phenomena that enter into the clinical picture of the disease are the direct consequence of the sense of weariness, partial or general, and of incapacity, in conjunc-

tion with the psychic orientation of each man, and his intellectual and emotive content; or, in other words, the individual factor. This sense of weariness seems to have no limit, and yet, let us repeat, it may be attended by intermittent displays of emotional activity.

Weariness

"For the sense of weariness we must consult such remedies as Gelsem., Coccul., Phos. ac., Arsenic, Arnica, Picric acid, Nux v., China, Carb. veg., Phosph., Rhus tox., Staph., Verat., Sulph., Ipec., Lycop., Amm. c., Caustic., Laches., Calc. c. After exertion: Anacard., Coccul., Sepia, Arnica, Gelsem. After mental exertion: Picric acid, Gelsem., Ignat., Calc. c., Nux v., Sepia, Lycop., Anacard., Laches, Nat. mur., Silica, Staph., etc.

Fatigue of mental origin

"But the fatigue of neurasthenia is also of mental origin. The mental weakness is shown by various kinds of indecisions, but chiefly by the impossibility to fix the attention on anything, or, better, by the inability to attend to anything requiring thought; in fact, every mental exertion causes a sense of helplessness sad to contemplate and the loss of memory seems to go pari passu with the mental languor.

Mental debility

"For the mental debility we may suggest the study of Picric acid, Gelsem., Aurum, Laches., Calc. c., Nux v., Rhus tox., Hyosc., Staphis., Carbo. v., China, Sulphur, Nat. mur., Pulsat., Sil-

ica, Merc., Stram., Verat., Anacard., Bellad., Lycop., Opium, Sepia, and Phosph. ac. Complicated with injury of the head: Arnica, Cicuta, Rhus tox., Mercur., and Staphis. For the loss of memory: Anacard., Aurum, Arnica, Hyperic., Alum., Bovis., Hepar., Hyosc., Laches., Nat. mur., Nux m., Opium, Staphis., Sulph., Bellad., Bryon., Cycla., Ignatia, Helleb., Lycop., Petrol., Rhus tox., Sepia, Silica, Stram., Verat., Viola.

Insomnia

"The alteration of nerve-function most important in this malady is insomnia, the result almost always of an irritable and badly-nourished brain, and sometimes the product of a fixed idea, but occasionally is due to restlessness, pain, or anticipation of evil arising from causes relating to finances, inability to work, loss of position, prognosis of the case, etc.; and, more frequently, it is of purely functional origin, occurring particularly in the nervous and impressionable, who do not cease to worry or fret about the accident which brought on his morbid condition or any established litigation or lawsuit. Hamilton, among others, believes that it is seldom the result of pain, for, as a rule, the headache and other sensory disturbances are relieved by the supine position and rest; that much of the wakefulness of the neurasthenics arises from their failure, either through inability or fatigue, to take the necessary exercise, and as a consequence there is

more or less toxemia, due to retained waste material, which is not excreted; and, finally, that there is ample reason to believe, and many cases support such a conclusion, that a great deal of the insomnia of neurasthenic subjects originates in, and is fostered by, an obstinate and continued belief that sleep is impossible.

Remedies for insomnia

"The remedies which, in connection with this symptom, have shown their influence on this malady are the following: Aconite, Coffea, Bellad., Gelsem., Nux v., Puls., Hyosc., Ignat., Cham., Rhus, Coni., Opium, Mosch., Sulph., China, Phosph., Cina, Jodium, Secale, Caustic, Actea. Sleep prevented by nervousness calls for Nux v., China, Coffea, Sepia, Mosch., Lycop., Calc. c., Graph., Laches., Hepar, Sulphur, and Teucrium. When prevented by backache, think of: Amm. mur., Pulsat., Gels., Kali c., etc.

Vertigo

"A neurasthenic sensorial disturbance of frequent occurrence is vertigo, which may be found associated with tinnitus, asthenopia, but chiefly with headache and agoraphobia. A sudden variation in the blood supply or slowness on the part of the vascular walls to adapt themselves to sudden alteration of a motor character may explain its presence; or perhaps it may be due to some interference with the centripetal impressions from the eye, ear, muscles, or skin, which regulate the action of the equilibrating centres.

'In neurasthenia this symptom becomes disagreeable and causes a great deal of alarm.' The patient may be unsteady or go down and up stairs with difficulty, but not in the way familiar in tabes and some other spinal disease. It is often attended by tachycardia and relieved when the patient lies down.

"The remedies to combat this distressing symptom are: Aconite, Arnica, Bellad., Calc. c., China, Coni., Gelsem., Hepar, Laches., Lycop., Nux v., Bryon., Phosph., Pulsat., Rhus tox., Sanguin., Silica, Sulph., Æthusa, Ambra, Amm. c., Baryta, Caust., Coccul., Helleb., Ignat., Nat. m., Nit. ac., and Merc.

"I shall pass over the disorders of the nerves, of special senses, the circulatory disturbances, the paresthesias, the visceral disorders, which are secondary in this affection, and close this summary with two of the most important symptoms of neurasthenia, namely, headache and backache.

Headache

"The headache is often paroxysmal and chiefly pressing as from a helmet (casque neurasthenique de Charcot), of variable intensity. It may be frontal, bitemporal, occipital, and even unilateral, like migraine, and the occipital causes more suffering than the frontal. It may also be compressive, darting, and hammering, with fear of death. It is worse by mental labor and emotion, and relieved by rest and the supine position.

Sometimes it is attended by congestive conjunctiva and tenderness of the scalp, and instead of headache there is occasionally a feeling of emptiness in the head.

Helmet-like pressure

"To relieve these headaches, Homœopathy counts many valuable remedies, as follows: For helmet-like pressure we can study: Lauro., Mezer., Rhodo., Sulph., Teucri., Cyclam., Jodium, Nit. ac., Stann., Sarsa., Glono. Headaches of a pressing character have also been cured by Silica, China, Nat. mur., Anacard., Spigel., Asarum, Baryt. c., Calc. c., Bovista, and Laches. For darting pains consult: Ambra, Arnica, Anacard., Bellad., Calc. c., Ignat., China, Nit. ac., Pulsat., Sepia, Silica, Aconit., and Sulph. For hammering pains: Ferrum, Ambra, Calc. c., Bellad., Ignat., Laches., Ledum., Nat. mur., Phosph., Pulsat., Sepia, Stram., Glono., Sulph.

Frontal headache

"Moreover for frontal headache: Aconit., Arnica, Arsenic, Bellad., Bryon., China, Ignat., Lycop., Phosph., Sulph., Alumen, Calc. c., Coccul., Ipecac., Kreos., Nat. mur., Nit. ac., Nux m., Nux v., Petrol., Platina, Sabad.

Occipital headache

"For occipital headache: Nit. ac., Calc. c., Sepia, Ignat., Carbo. v., Kali. c., Sulph., Mosch., Mur. ac., Petrol., Mag. m., Gelsem.

Unilateral headache

"For unilateral headache: Pulsat., Nux v., Sanguin., Coloc., Sepia, China, Ignat., Arsenic, Calc. c., Coccul., Lycop., Ipecac., Bryon., Chamo., Coffea, Asarum.

Emptiness in the head

"If instead of headache there is a feeling of emptiness in the head, study: Pulsat., Coccul., Sepia, Ignat., Opium and Oxalic ac.

Lumbar sacral pain

"The backache of neurasthenia is distressing and irregular in situation, but usually is seated in the lumbar-sacral region. The pain is of a burning character and is felt along the spine; or is deep-seated, with or without superficial hyperesthesia, worse on touch or from pressure. If the pain radiates it is often accompanied with numbness and tingling in the extremities, and may leave the coccyx tender. The pain is peculiar when the spinal column is bent forward or backward. Sometimes it is so intense that it continues when the patient is at rest. The cutaneous hyperesthesia produces great discomfort by contact of the ordinary clothing. Muscular soreness, general and localized, is often associated with the pain.

Dr. Farrington's remedies

"Dr. Farrington, in his excellent paper on Neurasthenia, published in the Hahnemannian Monthly, of February, 1883, gives the following remedies, from which I have always made my selection for cases of spinal trouble: Nux v., Phosph., Selen., Helon., Graph., Nat. m., Picric ac., Pulsat., Sepia, Diosc., Zinc., Sulph., Æscul., Arg. nit., Arsenic, Alumin., Coccul., Gelsem., China, Chinin. ars., Ipomeæ. When the lumbar spine remains sensitive he recommends:

Phosph., Agaric., Bryon., Lycop., Pulsat., Sepia, Arsenic, and Alumin. When there are transverse stitches: Sulphur. With cutting through the back: Nat. mur. Cutting down the legs: Zinc. When pains go around: Pulsat., Sepia, Berber. When the pains go down to thighs: Sepia. When the pain extends into the hips: Gelsem. Bruised sensation is common to nearly all. Tension is marked in Zinc., Nux v., Sulph., Nat. mur., and Valerian.

"Other authorities give for backache, in general: Sepia, Puls., Calc. c., Picric ac., Sulphur. Laches., Silica, Nat. m., Kreos., Lycop., Kali. c., Mag. c., Bovis., Arnica, Zinc., Platina, Nux m., Nux v., Sulph. ac., Stram., Mur. ac., Merc., Amm. c., Baryta, Phosph., Verat. and Asarum.

Burning pains

"For burning pains, which are almost characteristic, I have used, with success, Sulphur and Nit. ac.; others recommend Carbo. ani., and when located in the lumbar region, Nit. ac. and Baryta. When the pains are deep-seated, digging, some have found Sepia, Aconite, and Dulcam. very useful remedies."

CHAPTER VII

INTOXICATION PSYCHOSES

ALCOHOLIC INSANITIES

ACUTE AND CHRONIC ALCOHOLIC INSANITIES

Numerous and varied are the effects produced upon the brain and nervous system by alcoholic stimulants and the ethers which they contain. We may have alcoholic deliria, mania, melancholia, counterfeiting paranoia, epileptic, and stuporous states, morbid impulsiveness, and progressive dementias. Whatever the form of the disease, we find in all alcoholic insanities a characteristic weakening of the mind and marked intellectual and ethical deterioration. Nor are the brain and nervous system the sole sufferers; the arterial system, the kidneys, liver, stomach, and pancreas reveal the destructive influence of the constant inhibition of alcoholic poison. Nor are the ravages of this dread destroyer limited to the alcoholic himself; his children are often stunted physically and mentally, and numbers of imbeciles, epileptics, and deaf mutes can trace their hopeless condition to a drunken parentage. While found at all ages, chronic alcoholism is

Deterioration; Mental, Ethical

most prevalent between twenty-five and forty-five years of age. Whatever the age the symptoms are practically the same.

GENERAL SYMPTOMS OF ALCOHOLISM

Visual hallucinations

In all forms of acute alcoholic insanity, illusions and hallucinations of the special senses are predominant symptoms. They are also prominent factors in certain of the chronic forms of alcoholism. The most prevalent hallucinations are visual, the next in importance being aural, and not infrequently a combination of the two is present. These hallucinations vary from sparks flying before the eyes to complex combinations of animals or groups of spirits, robbers and ghosts always moving about the compartment. Delusions based upon perverted sense perceptions also may arise, causing the sensation of burning, crawling, tingling, or numbness of the skin, or of electric shocks in different parts of the body. The perverted mind of the alcoholic, out of these abnormal sensations, constructs varieties of delusions of persecution by witchcraft and plots of enemies to destroy his happiness, to take away his mind, his manhood, or his life. Perverted sensations in the genitalia, stomach, liver, or lungs frequently form the basis of delusions, usually persecutory in form.

Persecutory delusions

Hallucinations of smell and taste more fre-

quently occur in this than in other forms of insanity. The patients complain that chloroform is blown into the room, filth mixed with their food, and poison put into their drinking water. *Hallucinations; smell, taste*

Continually harassed and annoyed by these persecutory delusions, the alcoholic frequently becomes the most dangerous of patients, often frantically attacking those about him as the authors of all his sufferings and troubles. *Dangerous*

Numerous sense perversions may occur in chronic alcoholism, in the form of anesthesia and analgesia of large areas of the skin, at times diminishing the sensation of the entire body. *Sense perversions*

One of the most prevalent symptoms is a muscular tremor that involves the small muscles of the hands. This is most apparent in the morning, often disappearing as the day advances. *Muscular tremor*

Muscular twitchings, spasmodic contractions, and cramps also are often experienced.

The kneejerks and other deep reflexes are usually moderately exaggerated in delirium tremens and chronic alcoholism, unless the cases are of unusual severity and attended by collapse, when the exaggeration may be marked. Loss of kneejerks is encountered only when organic lesions of the posterior root nerves has taken place. *Reflexes*

CLINICAL ASPECTS OF ALCOHOLISM

(1) Ordinary drunkenness.

(2) Acute alcoholic insanity (delirium tremens).
(3) Chronic alcoholic insanity.

ALCOHOLIC PSYCHOSIS

(a) Melancholia.
(b) Mania.
(c) Alcoholic paranoia.
(d) Korsakow's psychosis.
(e) Alcoholic pseudo-paresis.
(f) Alcoholic progressive dementia.
(g) Alcoholic epileptic insanity.

While ordinary drunkenness cannot be ranked among the insanities, it nevertheless produces certain mental symptoms which demand a brief consideration in this connection.

Certain nervous symptoms appear in all hard drinkers, either as the result of alcoholic indulgence or as an inheritance.

An overweening egotist, regardless of the rights of others, unreasonably irritable and prone to violent outbursts of blind impulsive passion rendering him a terror to wife and children, entirely regardless of the feelings and sufferings of his family or friends, indifferent to the opinions of others, the drunkard is a composite of the worst human traits. He lives with but one object in view, the gratification of his insatiable desire for drink. Loss of fortune, position, cast,

A composite of the worst human traits

a starving family, may stare him in the face; he cares not. Satisfy his thirst and he is content.

As time passes and the desire becomes more and more dominant, all will power is lost, the intellectual and ethical faculties are weakened, logical thought and mental concentration become impossible, the brutal passions alone remain, and he sinks into a state of hopeless dementia.

Often possessed by an unreasoning jealousy of his wife, a fixed delusion of marital infidelity is developed, causing continuous strife in his home, which frequently terminates in the homicide of wife and family.

The majority of drunkards, fortunately, meet an early death through arteriosclerosis, pneumonia, cirrhosis of the liver, or inflammation of the gastro-intestinal tract, with colliquative diarrhœa.

The only treatment for the drunkard is to place him permanently in an institution, where no intoxicants can be obtained.

ACUTE ALCOHOLIC INSANITY

CLINICAL FORM (DELIRIUM TREMENS)

Most common form

Delirium tremens is, by far, the most common form of alcoholic insanity, occurring at some time in the majority of habitual drunkards. The appearance of the disease depends more upon the amount of liquor taken than upon long-continued

indulgence. While some persons, accustomed to daily drinking, may for years escape, others in whom the vice is of short duration may become victims. The greatest danger lies in the taking of large quantities within a short period, without sufficient time being allowed for its elimination. The same result may follow the sudden withdrawal of the accustomed drink. Most of the sufferers from delirium tremens have suffered previously from gastric catarrh with morning nausea, creating a disinclination for food and preventing assimilation. Often, for days or weeks, the physical strength is almost entirely sustained by stimulants until collapse occurs and the typical mental symptoms appear.

Succeeding the long-continued use of alcohol, or the taking of large quantities within a short period, certain premonitory symptoms appear. Great irritability, restlessness, disturbed sleep, apprehension caused by the presence of sudden optic or aural illusions, are manifested. Within a few hours or days, the full symptom complex of the disease is developed.

Hallucinations of sight and hearing

The characteristic symptoms are the sense deceptions, the most common being those of sight. Sparks and flames flash before the eyes, horrid animals inhabit every corner and spring from every direction. Bugs, worms, and snakes crawl around. Rats and mice run

about. Less frequently are beheld wild orgies of devils, sprites, and naked women. Auditory hallucinations, although less frequent than those of sight, are not uncommon. Voices shout insulting remarks in the patient's ears, call him names, and accuse him of crimes. Friends in distress appeal to him for help. One patient of mine, who suffered from several attacks, at each attack saw a scaffold in process of erection before the hospital, upon which he declared that he was to be executed. Often the patients behold enemies pointing guns at them, and continually dodge to prevent being shot. Women frequently assert that they are nightly ravished.

Many of these visions are illusions based upon some actual perception. Knots in the bed clothes are transformed into bugs. Spots upon the wall change into faces, and the creaking of doors and the ringing of bells are translated into cries for help and warnings of danger.

Disorientation

Disorientation is not uncommon. The hospital ward becomes a favorite drinking-haunt; and the orderlies, friends and long-known acquaintances. After being confined to his bed for days, the patient often regales his hearers with long accounts of journeys he has made during that time, and of sights and pleasures he has enjoyed. Still, in spite of such disorientation, questions may be answered sensibly and cor-

rectly, although the answers may be interrupted by the patient's replying to his imaginary voices or attempting to rid himself of the horrible things by which his mistaken perception has surrounded him.

Changeable

Ever changeable, one moment the patient laughs and talks, the next cowers with fear before some frightful phantasm, or, possessed by sudden violence, he may destroy anything within reach or furiously assault any one with whom he comes in contact. In some cases the imaginary scenes furnish continual entertainment. The hallucinations are frequently colored by the previous life and occupation—the coachman drives his horses, the merchant vends his wares, and the lawyer tries his cases.

Hallucinations of taste and smell

Hallucinations of taste and smell, though less common than those of sight and hearing, are not infrequently encountered.

Delusions may arise out of the hallucinations, but they are less prominent than in the more chronic stages of alcoholic insanity. When present they usually relate to the persons by whom the patient is surrounded. His wife is declared unfaithful, his children dead, or he himself is to be executed for his misdeeds. Delusions usually are of a depressing character.

Ever restless and uneasy, the patient is continually in motion and occupies himself, accord-

ing to the nature of his phantasms, it may be in collecting the gold with which the floor of his apartments is strewn, or in endeavoring to catch the bugs or insects with which he is tormented, or in attacks upon the horrid beasts by which he is threatened. Self-destruction is rare, but should always be guarded against. While murderous onslaughts are uncommon, still a delirium-tremens case is always dangerous, especially if suffering from hallucinations that cause him to regard himself in danger, since under their influence he may attack any one with whom he comes in contact. Sleep is usually absent, or much disturbed, in the early stages of the disease. When exhausted by his long physical exertion, the patient may sink into a stupor and from that pass into true sleep.

Dangerous

Because of the disturbed condition of the digestive organs, little food is usually taken and nutrition is greatly interfered with. Often delusions of poison prevail and on this account all food may be refused. Characteristic motor phenomena always appear. These consist of a fine muscular tremor, especially marked in the small muscles of the face and hands, but apparent in all the voluntary muscles. This tremor, under the influence of stimulation, may temporarily cease, so that a cup of water may be carried to the mouth or a button may be fastened, provided the

Tremor

motions are rapid. As soon, however, as the attention is distracted the tremors are renewed. This is not a true incoordination, but a deficiency of nerve control producing a true paresis of voluntary motion. In severe cases, twitching and contractions of the orbicularis and occipito frontalis muscles occur and a vibratory tremor of the tongue appears. An increase of reflex excitability occurs in all cases that approach collapse delirium and occasionally an excitation of one kneejerk causes a contraction of the corresponding muscles of the other leg. An uncertain stumbling may be present as the result of muscular weakness, but the patients can usually stand firmly, whether the eyes are closed or open.

Paresis of voluntary motion

Disturbance of the sensory nerves appear in the form of anesthesias, paresthesias, or analgesias, frequently forming the basis of illusions.

The temperature, in uncomplicated cases, is seldom raised and at times is subnormal. Exceptions may occur, in which case the gravity of the prognosis is increased. The respiration is usually increased and the pulse is often weak and rapid, and profuse diaphoresis may occur.

Leucocytosis

Certain investigators have found marked leucocytosis during the height of the delirium, the leucocytes frequently decreasing below the normal with the subsidence of the excitement and afterward returning to the normal number.

Recent investigations have demonstrated that albuminuria is usually present in the early stages of the disease. Lupmann asserts that there is a relation between the presence of albumin and the delirium, the albumin appearing when the delirium is intense and disappearing as the delirium subsides. *Albuminuria*

Uncomplicated delirium usually results in prompt recovery, the average duration of an attack being from a week to ten days. The cases that result fatally are usually those in which marked gastric disorders and too prolonged abstinence have produced such severe exhaustion that the vital powers were unable to battle with the disease.

PATHOLOGY

No definite pathology of acute alcoholic delirium has yet been demonstrated.

TREATMENT

One of the worst problems in the treatment of delirium tremens is found in the management of the stomach. Many cases, on account of their chronic gastric catarrh, have for so long a time depended upon stimulants to the exclusion of food, that their stomachs have become incapable of retaining ordinary food. Even the simplest and most easily digested articles are rejected and *Stomach*

great difficulty is found in preventing death by exhaustion. Often lavage of the stomach is necessary before anything will be retained. Only the most easily digested food, in liquid form and in small quantities, will at first be tolerated, and in some cases a little stimulant will have to be given to prevent this being rejected. Hot peptonized milk in small quantities, at intervals of not more than two hours, in our experience has been the best diet. In many cases, milk and vichy in equal parts has given good results, the vichy supplying sufficient stimulus to admit of the entire removal of alcohol. Hot milk when retained often facilitates sleep, which is the one absolute necessity for the restoration of reason.

The remedies most frequently demanded are aconite, agaricus, arsenicum, belladonna, cantharides, cimicifuga, hyoscyamus, nux vomica, phosphorus, stramonium. The following are the most frequent indications:

ACONITE

Aconite Fear of darkness, being shot; Restlessness, Sensitiveness

The prevailing mental attitude of the aconite patient is fear. He fears darkness, ghosts, being shot at. He cringes in terror in the corner of his room or under the bed clothes.

Associated with the mental symptoms we find great restlessness, sensitiveness to pain, noise, and touch. The circulation is accelerated, the

pulse full and strong, and there is general heat over the whole body. While not as frequently demanded as some other remedies, it has in our hands often afforded relief.

AGARICUS

The agaricus patient may be good-naturedly excited, and talk, sing and dance; or be ill-humored, peevish, and taciturn; or a furious frenzy may prevail.

Tremor external and internal

With the mental symptoms there is a marked tremulousness of the tongue and lips, or an internal sense of tremor may exist, noticeable by the patient only, and causing great nervous excitement and apprehension. When nux fails to control the characteristic tremor agaricus may succeed.

ARSENICUM ALBUM

Hallucinations of sight—bugs, vermin

Great restlessness and uneasiness, with fear of death; constantly annoyed by the bugs and vermin that he sees upon the bed and his person, he unceasingly tries to brush them off or may attempt suicide to escape his present suffering and misery.

With the mental symptoms the characteristic thirst is found, also great gastric irritation.

BELLADONNA

Pugilistic illusions and hallucinations of sight

Furious delirium; the patient bites, kicks, strikes. Numerous illusions, hallucinations, and delusions appear, illusions and hallucinations of sight being the most common. The face is flushed, head hot; the pupils are dilated and a general cerebral hyperæmia prevails. Sleeplessness or broken sleep is usually present.

CANTHARIDES

Continual attempts to bite, Sexual excitement, Face pale yellow, Dysuria

When the patients strive to bite continually, either at those about them or the bed clothing, and are greatly excited sexually, we have given cantharides with marked success. These patients are also hypersensitive to touch or the sight of any dazzling object. The eyes are bright, pupils dilated, but the face is pale yellow, wrinkled, and expresses constant suffering. When cantharides is demanded, dysuria also is usually present.

CIMICIFUGA

Hallucinations of sight

Sees all sorts of appearances about him—rats upon his bed, wires to encage him, and some one about to kill him. Suspicious, depressed, and suicidal. Great sleeplessness.

HYOSCYAMUS

Joyous changeable delirium, with much talking

and laughing. Marked sexual excitement, with a desire to expose the person. Fear of poison also is a prominent symptom of this drug, and when present can usually be relieved by it. Sleeplessness and much muscular twitching also are likely to occur.

Changeable delirium, Fear of poison, Sleeplessness

No other remedy has in our hands proved more efficacious, especially when marked sleeplessness has occurred.

NUX VOMICA

Nux vomica is more frequently demanded than any other drug, especially when the tremor is marked and there are great ugliness and irritability and much gastric disturbance. When there is much trembling, of tongue, lips and hands, nux, if given in the start, will greatly improve the condition, even if some other drug has to follow to complete the cure.

Tremor, Ugliness, Irritability

PHOSPHORUS

Phosphorus is indicated when the characteristic prevailing symptoms are illusions of sight—"sees faces peering from all parts of the room." There is also great sensitiveness to noise and, often, sexual excitement.

"Faces peering from all parts of the room," Illusions of sight

STRAMONIUM

Stramonium is especially effectual in the most excited and wildest cases. The prevailing men-

Terrorizing hallucinations and illusions

tal characteristic is terror, which is produced by the various horrible sights and objects which surround them. Hallucinations and illusions of every form are present and are all frightful and terror-producing. When indicated, this drug is exceedingly effective.

ALCOHOLIC PSYCHOSES

Continued inebriety may produce melancholia and mania, which differ somewhat from the ordinary forms of those diseases. In both the melancholias and manias the onset is sudden, the mental reduction marked, the duration brief, and the restitution sudden and complete.

ALCOHOLIC MELANCHOLIA

Horrible hallucinations

Aside from some headache and more or less sleeplessness, the alcoholic melancholic may present no prodromata. Without warning, hallucinations appear, horrible sights come before the eyes, friends are murdered, prisons are opened for their reception and the gallows is erected for their execution. Groans and shrieks of agony fill their ears, voices accuse them of numberless crimes and heap them with abuse. More rarely, hallucinations of sight occur; visions of animals, devils, witches come before them, producing fear and anxiety. Associated with these hallucinations may be severe neuralgias of the peripheral nerves, and suicidal impulses.

Albuminuria

Not infrequently albuminuria is present. The reflexes may be normal, lowered, or slightly exalted.

The duration of the disease is ordinarily from eight to ten days, and upon recovery there is an indistinct remembrance of the hallucinatory period. Frequently a residue of the sense deceptions remains and forms a basis of a future delirium of persecution.

ALCOHOLIC MANIA

Onset sudden

The onset of alcoholic mania is sudden and is characterized by a fear of some impending danger. While in this condition, the patient is destructive and highly dangerous to any one with whom he comes in contact and may commit motiveless murders of which he afterwards retains no remembrance.

The premonitory symptoms are increased irritability, sleeplessness, morbid impulses, increased sexual excitement, a general change in the appearance and character, and an exaggeration of the desire for drink.

Intense excitement

The excitement is extreme and uncontrollable, often impelling the patient to furious assaults upon his family and friends. At the acme of excitement there is marked mental confusion and the actions are motiveless and impulsive. The facial and hand muscles exhibit marked tremor

and there is marked disturbance of the articulation. Facial paralysis may appear, the pupils are unequal or myotic, and the deep and cutaneous reflexes are exaggerated. Delusions of grandeur similar to those of paresis frequently appear. The patient boasts that he is a multimillionaire, Christ, Mahomet, or King of England. Any opposition elicits the most extreme outbursts of violence. The delusions are usually based upon antecedent hallucinations. Heaven is opened or angels surround him and the patient converses with his angelic visitants. During the excitement, destructiveness and agitation remissions may occur, only to be followed by renewed excitement, destructiveness and agitation until the physical powers are exhausted. Pain and physical discomfort seem entirely absent, the patients may bruise their bodies or break their limbs without any apparent discomfort.

Paresis

Remissions

Duration

The disease lasts from one or two days to several weeks, according to its gravity. The improvement is manifested by the lengthened duration of the remissions, the lessening of the excitement, and the increased amount and improved character of the sleep. With the decrease in the excitement physical weakness is manifested and the patient gradually returns to his normal mental state. The delusions may persist for a considerable period and a certain amount of mental deterioration may permanently remain.

In a large number of cases the intense mental excitement may pass into a muttering delirium with symptoms of collapse, and speedily terminate in death. *Muttering delirium, death*

The disease may run a chronic course. Paroxysms of violence may occur with shouting, weeping and destructiveness, which are succeeded by dementia. The delusions gradually fade away, the nutrition is lowered, the pulse becomes slow, the arterial tension is lessened, and the temperature sinks below the normal. Paresis appears, there is sweating, the lips and extremities become ataxic, and the mind progressively weakens.

Within a few months death occurs from diarrhœa, pneumonia, or a continuous weakening of the vital powers with decubitus.

PROGNOSIS

A guarded prognosis should be given in all cases of chronic alcoholic mania. Not more than forty per cent. regain their normal mental health, many die from collapse, and a still larger number become markedly demented.

PATHOLOGY

The pathological changes are chiefly manifested in the cerebral circulatory system. The meninges and brain substance are markedly con- *Cerebral circulatory system*

gested with varicosity of the veins, general œdema of the brain, atrophy of the convolutions, and dilatation of the ventricles.

TREATMENT

In the treatment, particular attention should be paid to the nourishment, which should be given in liquid form at short intervals. The patient should be kept in bed and the bodily warmth should be sustained by hot applications and by a high temperature in the room if necessary.

The remedies should be selected according to the symptoms. In cases of collapse, in addition to the ordinary heart stimulants, alcohol in some form may be demanded.

ALCOHOLIC PARANOIA

This form is usually preceded by a short period of incubation. After prolonged alcoholic indulgence, headache appears, the sleep is broken, and the circulation is disturbed. Suddenly hallucinations of hearing or sight appear, those of hearing being the most common. Disturbing voices continually fill the patient's ears; they accuse him of being a sexual pervert, a seducer, or an impotent, or taunt him with being a victim of an unfaithful wife. He hears continually the most disgusting language or is informed of plots being formed to poison him or take away his virility.

Hallucinations of taste and smell may be present, frequently intermingled with delusions. Poisonous gases are blown into his apartments to destroy his health. Knives are thrust into his bed at night or unseen electric wires shock him. The most common delusions are the sexual and those which threaten his health and life. The enemies are unseen and work through mysterious agencies. As a result of his persecutory delusions the patient is in a constant state of anxiety and fear, and seeks protection from his friends or the public authorities. Intermingled with the persecutory, egotistical delusions may appear. He is persecuted because of his eminence or his great wealth, which his enemies are attempting to secure. Occasionally the delusions of great political power are evidenced. The patient has been appointed Justice of the United States Supreme Court, or elected Governor of the State, or President of the United States, and is being kept by his enemies out of his rights.

Persecutory delusions

Delusions of grandeur

The termination of cases of persecutory delirium varies. Some, when deprived of all alcoholic stimulants, shortly return to health. Others are mentally weakened, retaining but vague impressions of their delusions. In still other cases the hallucinations and delusions hold sway for a long time, the mind becoming more and more weakened as time passes, although in exceptional in-

Termination varies

stances, after years a partial restitution may occur.

In certain cases of alcoholic persecutory delirium the disease is the result of a gradual evolution, but the symptoms do not materially differ from the form just considered. The aural hallucinations first appear as noises in the ear, whistling, buzzing, or roaring. Gradually, from these, distinct voices are developed. By these voices, night and day, the patient is mocked, taunted, and annoyed. He is threatened with imprisonment and death or is told of his wife's unfaithfulness. Sexual perversions predominate. Unknown persons accuse him of being an onanist, a pæderast, or of being impotent. With the advance of the mental enfeeblement, hallucinations of sight appear; visions of every form and variety are flashed before the eyes, the most common being of a sexual type.

Continually annoyed and irritated by these hallucinations and delusions, the patient becomes excessively irritable and quarrelsome. Possessed by delusions as to their intents and purposes, he may become dangerously hostile to his family and friends and attempt to injure or kill them. On account of their delusions, these patients are ranked among the most dangerous of the insane. From the constant presence of these voices and the belief of his continued persecution, the patient

Dangerous

may develop egotistical delusions, asserting that he has been raised to some high position and is being defrauded of his legal rights. As a consequence, he becomes excessively irritable and liable to furious outbreaks from the slightest contradiction. The sleep is often greatly disturbed by nightmares or nightly visions.

Facial tremor, partial paresis, anesthesias, general muscular tremor and serious defects of the memory are usually apparent.

From the close resemblance of this symptom complex to paranoia, it is known as alcoholic pseudo paranoia.

PROGNOSIS

Prognosis bad

The prognosis is bad. The mental deterioration is progressive, precluding any hope of recovery.

TREATMENT

The patient should be permanently committed to an asylum and deprived of all alcoholic stimulants.

KORSAKOW'S PSYCHOSIS OR KORSAKOFF'S DISEASE

Korsakoff's disease

This disease consists of certain characteristic disturbances of memory associated with symptoms of polyneuritis, the result of prolonged alcoholic excesses. As the symptoms are practically

identical with those produced by certain exhaustive diseases, and already described under post-infection psychoses, we shall not repeat them here.

ALCOHOLIC PSEUDO PARESIS

In certain confirmed alcoholics a symptom complex develops closely resembling dementia paralytica. Two forms are recognized.

In the first, in addition to the ordinary mental weakness, lassitude, vestiges of former hallucinations, illusions, or delusions, the tremors and other sense perversions, we find the ataxia of the paretic, difficulties of speech, continuous cephalalgia and frequent epileptic and apoplectic seizures. The speech defect is, however, an ataxia and not the stammering slurring utterance of the true paretic. Neuritis and amnesia also are frequent characteristic complications.

Speech ataxia

The history of chronic alcoholism usually precludes any difficulty in the diagnosis.

In the second form the tremor of the lips and facial muscles and the epileptic seizures do not appear, but delusions of grandeur are present, often connected with the sexual functions. The patient has unlimited wealth, is the most honored and influential of men, or his sexual organs are the largest in the world and his powers of procreation are unlimited, and he is the husband of

Delusions of grandeur

thousands of the most attractive women. These delusions are changeable, varying from day to day, and may continue for only a few days or months, when they will disappear in the patient's advancing dementia. The mental feebleness remains permanent, but the mental annihilation is not so complete as in true dementia paralytica. Neuritis may not be present in this form and the pupillary changes are less frequent than in true paresis, although the light reflex may be absent and imperfect reaction to accommodation and convergence may be present. Pupillary irregularities are not unfrequently discernible. When neuritis is present the deep reflexes are diminished or absent; in other cases they are normal or exaggerated.

Pupillary changes

ALCOHOLIC DEMENTIA

Alcoholic dementia is a common result of all forms of chronic alcoholism, but in persons with inherited brain weakness may assume a progressive form. It occurs most frequently during the early years of adolescence and in the retrogressive period of life.

A progressive mental enfeeblement, ending in complete destruction of the reasoning faculties, frequently occurs in young persons between the ages of eighteen and twenty-five who are the descendants of drunkards, although the indul-

Descendants of drunkards

gence in intoxicants may have been moderate. In these cases the mental faculties are completely abolished and they sink to the level of brutes.

An individual with a normally healthy nervous organization is much more liable to mental deterioration from the use of intoxicants when the habit is formed late in life than when it is begun in early manhood. Chronic progressive dementia is a common occurrence in those cases, the first symptoms being failure of memory, which is followed by slight motor phenomena, and lastly by progressive mental weakening, terminating in absolute obliviousness.

Memory

Prognosis

The prognosis is unqualifiedly bad. Withdrawal of the cause may retard the progress, but the existing mental enfeeblement is permanent.

ALCOHOLIC EPILEPSY

Prolonged alcoholic indulgence not only intensifies the severity of epilepsy, but may be the sole causative agency. Eight to ten per cent. of alcoholics eventually develop epilepsy, the attacks usually appearing after a prolonged debauch. The disease may assume any of the regular forms of epilepsy or appear as one of the epileptic equivalents.

The prognosis is unfavorable, even if the producing cause is removed, and repeated seizures are liable to produce a fatal issue.

CHAPTER VIII

INTOXICATION PSYCHOSES

(CONTINUED)

MORPHINISM

Next to alcohol, among the drugs capable of producing chronic intoxication, stands opium and its derivatives. From earliest times its narcotizing and exhilarating effects have fascinated and enchanted mankind. From all nations, and in every clime, are found its victims, those in this country alone numbering more than one hundred thousand, with accessions being daily made to their ranks. While no class of society is exempt, the medical profession furnishes the largest number of victims. The long-continued vigils and strenuous labor of the physician, often banishing sleep when it could be obtained, render him especially liable to yield to this alluring drug. The same danger confronts the professional nurse, as the continually increasing growth of the evil in this class demonstrates. While a large number yield to the seductions of the pipe, and many confine themselves to laudanum, the majority in this country use morphine alone, as the

Medical profession

hypodermic syringe affords an easy and effective mode of administration.

Painful diseases

Various causes lead to the contraction of the habit. In the majority of cases with normal nervous organizations, the agony of neuralgia, tabes, or rheumatism, or some other painful disease, has caused a resort to the drug, at first through the prescription of a physician. Fascinated by its soothing or exhilarating effects, the patient continues its use long after the suffering for which it was prescribed has passed away, until he finds that he is unable to do without it.

Unstable nervous temperaments

In others with unstable nervous temperaments, an innate craving for the drug exists. Thus the neurasthenic, the hypochondriac, the periodical melancholic, and the drunkard turn instinctively to opium for amelioration of their individual miseries.

Insomnia

Still others tortured by insomnia, through grief from loss of friends or business failures or remorse for their misdeeds, seek immunity in the oblivion of the poppy's juice.

To enhance brain power

Again others, allured by its temporary brain stimulation, strive to enhance their brain power and augment their achievements, only too soon to find that their ability for mental work has been thereby destroyed.

The dose taken by the habitué varies from a fraction of a grain to twenty or even sixty grains

of morphine daily. Of laudanum, the daily allowance may reach as high as a thousand drops.

Opium is much slower than alcohol in producing any degenerative effects upon the system, and they are much less apparent. Ordinarily, life is not shortened by its use unless some other more dangerous drug, like cocaine, alcohol, or chloral, is taken in conjunction with it. Nor are the children of the opium fiend usually affected, except in those countries where the habit has prevailed for generations.

Two groups of symptoms appear: (1) those directly produced by the drug itself and (2) those which are caused by its withdrawal.

(1) The symptoms produced by opium vary greatly according to the individual's nervous organization. Many persons unhampered by any inherited weakness, may take the drug for months and years before any marked deteriorating effects are manifest. In others, less happily organized, marked pathological signs of nerve change may appear much more quickly.

Increased brain activity

The first sensations produced by the inhibition of opium are pleasing and exhilarating. The brain is aroused to increased activity. Thought is accelerated and the mind works with a clearness and rapidity previously unknown, the arteries contract, the pulse is retarded, and the respiration is deepened. Soon a pleasant sense of lan-

guor is experienced, followed by drowsiness and by sleep broken by pleasing hallucinatory dreams. These effects endure for ten or twelve hours and are succeeded by so-called abstinence symptoms, malaise, dryness of the mucous membranes, dull headache, nausea, with inability for mental or physical activity. All of these disagreeable symptoms disappear if the dose is repeated.

Disturbed sleep

With the morphine habitué the sleep is never sound, but is disturbed by continually changing, dream-like visions. These hallucinations may be pleasing and enjoyable or horrid and terrifying. One of the chief characteristics of the visions is an obliteration of time and space; the whole drama of life may pass before the eyes in an instant or an incident, read or heard, may seem to be prolonged for an eternity.

Incorrigible liars

When the habit is fully established a pronounced change in the character ensues. Irritable, morose, sullen, treacherous, devoid of moral sense, incapable of telling the truth, any means, however dishonest, will be adopted by the victim to obtain the coveted drug. His conscience seems dead and no more unreliable person can be imagined. Fortunately for the race, with the establishment of the habit the power of propagation ceases through positive impotency.

The physical symptoms are markedly characteristic. The skin becomes dry, dirty, and yel-

low and may be blotched with eruptions, and night and day covered with a profuse perspiration. The hair easily whitens and is lost. The nails become brittle and the teeth loosen and the secretions diminish. A peculiar cachexia resulting from profound anæmia unerringly marks a prolonged indulgence in the habit. The pupils contract to a pin point and are non-reactive to light or occasionally present inequalities. Tremulousness, especially noticeable in writing, may be observed, with a general lowering of the muscular powers. The cutaneous and deep reflexes may be lessened or slowed, and ataxic signs not infrequently are present. A coated tongue, foul breath, constipation, anorexia, and gastric acidity reveal the disordered condition of the digestive organs. Incontinence or difficulty in the passage of urine may occur, although the secretion of urine may be augmented. Functional disturbance of the heart, in the form of false angina pectoris, or attacks of pericardial anxiety may add to the patient's misery. Obstinate insomnia also attends the last stages of the disease.

Skin symptoms

Anæmia

Disordered digestion

Heart disturbance

(2) The symptoms of deprivation usually appear within ten to fifteen hours after the ordinary dose is omitted. Prominent among these is a feeling of intense muscular weakness attended by diarrhœa and severe colic. The body is bathed in a profuse perspiration and a general

Nerve pains

tremulousness adds to the patient's mental restlessness and tremor. The most intense nerve pains, in every part of the body, may drive the sufferer almost to distraction. Frantic with agony, the patient begs for opium, and if his request is gratified all these symptoms immediately disappear.

Delirium Tremor Coma

If the abstinence is prolonged for days, serious mental phenomena and terrifying hallucinations of sight and hearing, similar to those accompanying alcoholic delirium, may appear. A general muscular tremor accompanies the delirium and this, with marked interference in the circulation and respiration, with threatened coma, may compel a renewed resort to the morphine.

When the withdrawal is gradual the symptoms, although distressing, are not so dangerous to life. General muscular weakness, with ataxic gait, agonizing neuralgias, paresthesias, nausea, vomiting, profuse perspiration, abdominal pain, disturbance of the respiration and the circulation, are attended by apprehension of impending death. The mental symptoms of insomnia, depression, restlessness, defect of memory, with an intense craving for the drug, accompany the physical symptoms. If the withdrawal is not discontinued, the general physical weakness may continue for months, culminating at last in death from a progressive marasmus.

PROGNOSIS

Prognosis bad

The prognosis of the modern morphine habit is bad. Many die either as a result of an overdose or, in their attempts to discontinue its use, by the substitution of some dangerous heart depressant, like cocaine, chloral, or one of the coal-tar products. The majority of morphine habitués, after treatment and being discharged as recovered, soon relapse into their old habit. Especially difficult of cure are those who superadd cocaine, alcohol, or chloral to the morphine.

DIAGNOSIS

Pupils, Cachexia, Skin, Mind

The diagnosis is based upon the contracted pupils, the peculiar cachexia, condition of the skin, mental sluggishness and the mental characteristics. The presence of scars from the hypodermic needle upon the thighs and arms are also highly corroborative. Examination of the urine may also reveal the drug and confirm the diagnosis. When morphine is used in conjunction with atropine, chloral, and cocaine, the difficulty of the task is enhanced. When the diagnosis cannot otherwise be established, close confinement of the suspect and development of the abstinence symptoms will render the decision positive.

TREATMENT

Two methods of treatment are in vogue: by

one the patient is gradually weaned by slowly diminishing the ordinary dose, by the other the patient is at once entirely deprived of the drug. During the process, the strength must be sustained by large quantities of the most nourishing, easily-digested food and remedies must be administered to combat the sleeplessness, and stimulate the heart and prevent fatal collapse.

Treatment must be institutional

Whatever the method selected, the mendacity, slyness, and cunning of the patient render successful treatment outside of an institution practically impossible. However closely the patient is watched when at large, he is almost certain to obtain the coveted drug and frustrate any measures adopted for cure. Of those treated in an institution but a small per cent. are permanently cured, the large majority, however long confined, relapsing within a short period.

COCAINISM

Erlenmeyer 1886

Among the most dangerous of the enslaving drugs is cocaine, the alkaloid of erythroxylon coca. The cocaine habit is one of comparatively recent years, the insanity which it produces being first described by Erlenmeyer in 1886. For the introduction of the cocaine habit the medical profession seems responsible, as it was first employed by physicians to combat the deprivation symptoms of opium, the preparation commonly used being the hydrochlorate.

The majority of cocaine habitués have previously been morphine slaves and use cocaine in combination with morphine. At the present time, on account of the serious results that it produces, it has been discarded by the medical profession as an agent in the treatment of morphinism, and its victims are dinimishing.

The majority of the slaves of cocaine are physicians, druggists, or persons of unstable nervous organization.

SYMPTOMS

The degree of tolerance of this drug varies greatly. A dose of one or two grains in certain individuals will produce dyspnœa, irregularity of the heart, and symptoms of collapse, while in others no perceptible effect will be manifested. A fatal dose varies from nine to twenty grains, although by habitués an even greater amount has been taken with impunity. Because of the transient effect of cocaine, frequent repetition of the dose is necessary in order to continue its influence. Unlike opium, the poisonous effects of cocaine may persist for weeks or even months after the drug has been discontinued, and in many cases the abstinence symptoms do not appear until the patient has been deprived of the drug for several days.

Dose

The administration of a large dose of cocaine

produces either a state of exaltation or symptoms of collapse. Where the dose is excessive a most alarming condition is developed. Signs of paralysis of the voluntary muscles with weakening of the joints, faintness increasing to coma, dizziness, tremor, vertigo, cardiac disturbance, cyanosis, and burning sensations appear, followed later by delirium, hallucinations of hearing, sight, and smell, general impairment of sensation and motion, and even convulsions. The pupils, at first widely dilated, at a later period become contracted and inactive to stimuli. Paralysis of the cardiac and respiratory centers even may occur, with a fatal issue. When recovery takes place, signs of nervous irritation and hysterical symptoms may be evidenced for days or even weeks. Ordinarily, the amount taken is insufficient to produce such disastrous results and the patient is restored to his normal condition within a few hours. The first symptoms of a moderate dose are usually mental exaltation and a general sense of well-being. The intellectual faculties are brightened and stimulated to unusual activity and the physical powers are enhanced. The stage of exaltation is of short duration and is followed by a state of depression, with a diminution of intellectual and physical vigor and disturbance of the heart's action. A continued use of the drug produces marked mental impairment.

Effects of excessive dose

Symptoms of moderate dose

The memory is weakened, concentrated mental activity becomes impossible, and the victim is rendered incapable of carrying on to completion any physical or mental work.

When the use of cocaine is continued, especially if combined with morphine, a serious ensemble of physical symptoms appears. Rapid emaciation takes place, the body often being reduced within a few weeks to one-third or one-fifth of its normal weight. The skin becomes of a dirty yellowish hue, the face acquires a harassed appearance and the physical strength is markedly weakened. A general tremor pervades the whole body, especially apparent in the tongue, attended by continuous muscular restlessness. The reflexes are exaggerated and muscular cramps occur. The pupils are dilated, sleeplessness prevails, the heart's action is irregular and attended by frequent attacks of fainting. Although the appetite may remain good and the assimilation be unimpaired and no signs of indigestion appear, the emaciation continues on account of excess of waste over the supply.

Emaciation
Yellow skin
Tremor
Irregular heart

Sometimes a positive hallucinatory insanity is produced in the cocaine habitué, closely simulating paranoia. Usually after a short prodromal period of motor restlessness, marked suspicion and distrust of family and companions is manifested. Hallucinations of hearing, sight, and

Paranoia

smell are soon developed, those of hearing being most common. Obscene language is continually poured into their ears. They are called vile names and accused of unspeakable crimes. Innumerable flies swarm before their eyes and vermin cover the walls of their rooms and infest their bedding and clothing. Among the most characteristic symptoms of this diseased condition are the numerous perversions of sensibility.

Magnan's sign

One of these, known as Magnan's sign, is almost pathognomonic and consists of a sensation as if a foreign body were under the skin, especially under the tip of the finger or in the palm of the hand. Innumerable paresthesias appear. Insects and lice crawl upon the body. Prickings are felt in the skin and twitchings of individual muscles occur, attributed to electrical currents thrown by hidden enemies. These sensations,

Paranoia like delirium

forming the basis of a paranoia like delirium, often render the victim exceedingly dangerous, as under their influence desperate homicidal attacks may be made upon the individual's family or upon anyone he may meet. Like the sufferer from alcoholic persecutory delirium, the cocainist is filled with an overpowering unrea-

Jealousy of wife

sonable jealousy that is centered on his wife, causing him to misjudge the most innocent actions, which, unless prevented by his incarceration in an asylum, may culminate in homicide.

Except when under the complete influence of the injection, the consciousness of the person is slightly affected. The most prominent mental symptoms are excitability, irritableness towards family and friends, reticence, and slight impairment of memory.

The most marked deprivation symptoms are fainting attacks, dyspnœa, palpitation of the heart, weakened will-power and depression. With the withdrawal of the drug, the hallucinations and mental cloudiness soon disappear, but the insane jealousy and ideas of persecution may persist for weeks and months.

Cocaine insanity is usually of short duration, lasting only a few weeks, especially when produced by rapidly increased dosage.

PROGNOSIS

Prognosis doubtful

The prognosis as to permanent cure is always doubtful because of the tendency to relapses, however perfect may be the recovery from an attack. In the most favorable cases, mental deterioration is apparent, evidenced in the weakened will-power and the tendency to resort to cocaine, alcohol, or morphine for the relief of any slight mental or physical ailment.

DIFFERENTIAL DIAGNOSIS

The paranoia of the cocainist differs from true paranoia in the greater number of insane ideas,

in the changeability of the delusions and their less perfect systematization.

The hallucinatory delirium of cocaine differs from the alcoholic by its peculiar skin hallucinations, the slighter degree of mental cloudiness, and the lack of albumin in the urine. The mania of cocaine is much more severe and dangerous than the alcoholic.

TREATMENT

Treatment institutional

The dangerous tendencies of most cases of chronic cocaine insanity render home treatment usually impracticable. Utterly untrustworthy, these patients can with the greatest difficulty, outside of an institution, be prevented from obtaining the drug.

When the daily dosage has not been more than ten or fifteen grains it may be immediately cut off without any danger of a fatal result, but a gradual withdrawal is to be preferred. During this process the strength should be sustained by the most nourishing easily assimilable food, given in liberal quantities at short intervals.

The bowels and kidneys must be kept active, careful attention given to elimination by the skin, and sufficient sleep be secured.

Watch for signs of collapse

A careful watch should be kept during the withdrawal and any symptoms of collapse immediately combated by appropriate remedies.

This vigilance must be sustained for several weeks, as dangerous indications may arise many days after the drug has been entirely discontinued.

The patients should be kept under restraint for several months after all symptoms of the disease have disappeared, in order to lessen as much as possible the danger of a relapse.

Numerous drugs, in addition to those already mentioned, may exert a poisonous effect on the nervous system, resulting in temporary or lasting insanity. Among the most common are the bromides, quinine, iodoform and lead. Chloral chloroform, ether, belladonna, salicylic acid, hyoscyamine, carbon dioxide, antipyrine, and various chemical toxins almost innumerable have in certain susceptible cases produced marked mental disorders.

The mental disturbances may be of sudden onset or of slow development.

The most common form is an hallucinatory delirium of a maniacal type attended by more or less mental confusion and motor agitation, with or without fever. When the development is slow, change of character, irritability, insomnia, and delirious fancies are the characteristic symptoms. When the attack is sudden, the brain is overpowered by the toxine, causing various disturbances and altered metabolism.

The duration of these deliria varies from a few hours to weeks or months, or they may become chronic, terminating in secondary dementia. Ordinarily, after from three to fourteen days, the mental equilibrium is restored unless the individual is of a markedly nervous organization. During the entire attack, intervals of perfect lucidity may alternate with periods of prolonged mental confusion. A continuous delirium deepening to somnolence and coma, forebodes a fatal termination. Ordinarily, the sense deceptions gradually fade away as recovery progresses and finally entirely disappear. At times recovery is sudden, but then relapses are common. In chronic cases, persecutory delusions are prone to supplant the harassing hallucinations and continue in a modified form until a weakening and apathy of the mental powers are established.

Signs of fatal termination

A correct diagnosis depends upon a knowledge of the poison taken, either internally or externally. Where this knowledge cannot be obtained, the diagnosis may be exceedingly difficult. A careful physical examination should always be made. Non-reactive widely-dilated pupils, a blue line on the edge of the gums, the odor of the breath, or a general cyanotic condition may suggest the causative agent and the necessary treatment.

The pathological anatomy of these chronic poisonings has not been fully established.

TREATMENT

The treatment must vary according to the causative agent. With many agents, like quinine, iodoform or the salicylates, little treatment beside the withdrawal of the drug will be required. With others, strenuous efforts at elimination of the poison by the skin, kidneys, and bowels must be made, in addition to thorough flushing of the stomach and intestines.

Food Stimulants

Large quantities of easily digested food must be given at short intervals to sustain the strength. When signs of cardiac weakness appear, stimulants should be administered every hour if necessary. When brandy or whisky do not prove sufficient, strychnine or digitalis may be required until all signs of heart failure have passed away. When maniacal symptoms are present the patient must be kept constantly in bed, by mechanical restraint if necessary. As much sleep as possible should be obtained, in order to help conserve the patient's strength until the effects of the poison have been overcome.

Must be kept in bed

The forms of poisoning capable of producing insanity are too numerous to admit of our describing them all in detail; we shall, therefore, limit ourselves to a few of the most common.

BROMISM

The extensive use of bromides gives to the alienist frequent opportunities for observing the effects of excessive dosage. As a rule, the mental symptoms are characterized by a retardation of the cerebral functions. This is manifested not only in the slow comprehension of questions but in all the muscular movements. The speech is slow, low, and monotonous. In addition to this retarded response to any stimuli, marked failure of memory, confusion, sleepiness, or stupor may be present, associated with vertigo, ataxia, epileptiform attacks, and numerous gastro-intestinal symptoms.

Mental retardation

IODOFORM

The poisoning from iodoform may result from its external application to wounds or its internal administration.

The psychosis does not usually appear until after ten or twelve days' use of the drug. After a period of irritability and uneasiness, mental confusion appears, followed soon by hallucinations. The patients become completely disoriented, oblivious to the lapse of time, excitable, complaining, and difficult to restrain in bed. The pulse is accelerated, the temperature elevated, and cyanosis may appear. The urine reveals the

Confusion
Hallucinations
Disorientation
Excitement

presence of iodine and often of albumin. The delirium may persist from four days to a week after entire discontinuance of the drug, until the urine fails to give an iodine reaction.

QUININE

Certain persons of marked neurotic temperament may become delirious from doses of quinine, perfectly harmless to the ordinary individual. A young man, twenty-five years of age and never before insane, came under my care several years ago. After a few days of treatment with moderate doses of quinine by his physician, he had developed suicidal mania with hallucinations of sight and hearing, and during one of his paroxysms of excitement had made an unsuccessful attempt at suicide by jumping from a second-story window. When first seen by me, he was wild and excitable, requiring mechanical restraint in bed to prevent his injuring himself and attendants. Complete discontinuance of the quinine and the application of a few indicated remedies restored him within a few days to his normal mental condition, in which he has remained for fifteen years.

Suicidal mania

LEAD POISONING

Mental disturbances from lead are among the most common, and were described by Dehane as

Dehane 1771

early as 1771. Before the appearance of cerebral disturbance, the common symptoms of lead poisoning, colic, wrist-drop, pains in the limbs, perineal paralysis, cramps in the limbs, and signs of innutrition and anæmia are usually observed. Insomnia, restlessness, vertigo, and noises in the head, may precede the cerebral symptoms, or they may be suddenly ushered in by an epileptiform convulsion. When once established, the psychosis takes the form of active delirium with great restlessness, hallucinations of sight and hearing, and marked tremor. Convulsions or periods of light stupor or attacks of complete coma may occur at any time. Other cases simulate dementia paralytica in their marked mental enfeeblement, tremulousness, and muscular weakness. The prognosis in these cases is unfavorable.

Active delirium

Prognosis

Pathology

The pathology is still in doubt. The consensus of opinion favors the view that the lead simply is an inciting factor in those especially predisposed to insanity.

CHAPTER IX

DEMENTIA PRÆCOX

Under the term dementia præcox, Kraepelin has grouped several constitutional psychoses, which make their appearance about the period of adolescence. Characterized by progressive psychic exhaustion and a tendency to dementia, it develops, in its course, maniacal excitement, melancholic symptoms, and confusional states.

Adolescence

It has been divided into three forms:

Hebephrenia.
Catatonia.
Paranoid forms.

ETIOLOGY

Pre-eminently a disease of the developmental period, more than sixty per cent. of the cases appear before the twenty-fifth year. There is, however, a difference in the various forms, nearly three-fourths of the cases appearing before the twenty-fifth year in hebephrenia, sixty-eight per cent. in catatonia, and forty per cent. in the paranoid form. Sixty-four per cent. of the hebephrenic cases are men, while women slightly predominate in the catatonic and paranoid forms.

DEMENTIA PRAECOX WITH MARKED MENTAL DETERIORATION

Defective heredity

Insane parentage is found in only one-half of the cases, but defective heredity appears in about seventy per cent. of them; this influence is, however, more potent in the paranoid and catatonic forms than in the hebephrenic. One-tenth of the cases are produced by typhoid and scarlet fever. A smaller percentage of cases may be traced to head injuries. Alcoholism in the father may act as a causative factor. Other exciting causes are severe attacks of children's diseases, rapid growth, exhausting study, over-exertion in athletics, fright, shock, emotional excesses, and childbirth with its exhausting sequelæ. While cases may occur in intelligent children, well endowed mentally, and with good physical development, in many various stigmata of degeneration appear, such as asymmetries, eye defects, ear or palate malformations. Certain early mental peculiarities, as excessive bashfulness, precocious piety, lack of self-control, are noticeable in many patients, and a small percentage have always been mentally defective.

Stigmata of degeneration

PATHOLOGY

No definite pathology has as yet been established, but various theories have been advanced as to the nature of the disease. One theory is, that where the deterioration is rapid a lesion of the cortical neurons exists, in some cases reparable,

Kraepelin's theory

in others permanent and progressive. The exact methods by which the changes in the nervous system are produced are still unknown. The most prevalent theory is that of Kraepelin, that dementia præcox is a disease of auto-intoxication. This hypothesis is based upon the close relationship which the disease bears to puberty, the frequent occurrence of menstrual derangement, and the frequency of its first appearance during pregnancy and the puerperium. As no positive anatomical basis for the disease has been established, we must await future investigation for a settlement of its true nature.

SYMPTOMATOLOGY

Intellectual enfeeblement

As many symptoms are common to all forms of the disease, we shall describe these before considering those diagnostic of the individual types.

The basic symptom of all the varieties of this disèase is intellectual enfeeblement. Yet, while mental weakness may profoundly affect certain faculties, others remain intact. While apparently oblivious of his surroundings, a patient may be completely oriented and give rational replies as to his location, dates, and passing daily occurrences.

Memory

The memory also may be slightly impaired, especially for past events, knowledge long since acquired being detailed with scrupulous exactness. Geographical facts, historical epochs and dates,

and names of rulers may be recalled even after evidences of advanced deterioration have appeared. Recent events, however, are liable to be forgotten. As the disease advances, both anterograde and retrograde amnesia appear,—the anterograde first, the retrograde later,—and, in the end, memory may be almost entirely effaced. Attention is always weakened and continuous concentration is impossible. In the mildest cases there is always lack of coherent thought which, in severe cases, results in genuine confusion, giving rise to the most incoherent forms of speech. The following typical example we cite from De Fursac: "What liver and bacon is I don't know. You are a spare; the spare; that is all. It is Aunt Mary. Is it Aunt Mary? Would you look at the thing? What would you think? Cold cream. That's all well; I thought a comediata. Don't worry about a comediata. You write. He is writing. Shouldn't write. That is all. I'll bet you have a lump on your back. That's all. I looked out the window and I didn't know what underground announcements are. My husband had to take days for a fit of sickness."

Speech incoherent

Defective judgment is always, from the beginning, a prominent symptom. This may not be accentuated when the patient is in familiar surroundings, but new conditions and circumstances bring it into prominence. Unable to comprehend

Defective judgment

the meaning of their surroundings, their actions become strange and delusions appear, based upon their defective judgment. These delusions may be of a persecutory nature, grandiose or merely silly. At first stable, then changeable, in the later stages of the disease they disappear except in the paranoid forms, and even in these they become incoherent.

Emotional field

Among the most common and characteristic symptoms are those evidenced in the emotional field, which may be the first evidences of mental trouble. The patient becomes listless and indifferent. Former pleasures cease to amuse, study and work are neglected, affection for family and friends is lost. The entire disposition is changed. Expressing neither joy nor sorrow, listless and apathetic, insensible to hunger or thirst, regardless of the calls of nature, oblivious to everything transpiring about them, the patients may sit or stand, for hours, days, and weeks, simply staring into vacancy. Yet, while appearing completely demented and devoid of all thought and activity, they are liable to have sudden causeless explosions of rage and violence. In these states furniture may be destroyed, windows broken, clothes torn, personal injury attempted, or violent motiveless attacks may be made upon anyone in their vicinity. These attacks of violence are usually transitory, but may endure for several days.

Explosions of rage

While the voluntary and normal reactions are reduced, the automatic reactions are often exaggerated. This is especially prominent in the catatonic form. Here each natural impulse, seemingly being met and overcome by an opposing impulse, gives rise to actions directly opposed to those desired. To this condition the name of *negativism* has been applied. While in this condition, active resistance is made by the patient to everything which is done for him. If asked to open the eyes, he closes them; if asked to show the tongue, he firmly shuts his teeth; only by force can he be dressed or undressed; food is refused; and the urine and feces may be voluntarily retained. This condition may be continuous, or, after being relieved from it for several days, the patient may again relapse into the same state. Stereotypy of movements and attitudes, verbigeration, grimaces, and silly laughter are other manifestations of the repeated recurrence of the same impulse. For hours, patients will repeat a single word or phrase, walk over the same spot, take down and put up the hair, dress and undress, or hum the same line of some familiar tune.

Negativism

Stereotypy
Verbigeration

The capacity for employment is always weakened. While capable of doing routine work under directions, they are utterly unable to branch out into new fields. While a few patients may be able to draw, or exhibit some musical or technical

MUSCULAR TENSION IN CATATONIC STUPOR

skill, there are always apparent evidences of mental weakness.

SOMATIC DISORDERS

A large variety of physical symptoms have been noted by various observers, but none of these can be considered constant or diagnostic. They appear in all three forms of the disease. In the motor sphere may appear transient hemiplegias and monoplegias, convulsive, hysterical, and epileptiform and apoplectiform attacks. The tendon reflexes may be diminished or abolished, but are usually exaggerated. Disorders of the pupils are frequent, but vary; inequality, mydriasis, sluggish reactions or contractions on forcible closure of the eyelids may occur. Another phenomenon has been described by Piltz and by Westphal: "If the patient attempts to shut his eyes while his effort is opposed by the examiner, who holds the lids apart forcibly with the fingers, a contraction of the pupil takes place, while the eyeball is rolled upward and outward."

Motor sphere

Piltz Westphal

The heart's action may be weak and irregular, accelerated or retarded. Frequent vasomotor disorders appear, œdemas, cyanosis of the extremities, dermographic and excessive perspiration. The temperature may be subnormal. Polyuria or oliguria may be present. In some cases there is excessive salivation. In the acute stages, loss

of sleep, indigestion, constipation, anorexia, loss of weight, and amenorrhœa are prominent symptoms; but these may all disappear later in the disease, and a good appetite develop with an increase in flesh, menstruation become regular and the skin assume its normal appearance.

HEBEPHRENIA

Eccentric from childhood

Puberty

The onset of this form may be so gradual and insidious that the most intimate friends may be unable to determine its exact beginning. For years previous to the definite establishment of the disease, the patients may have manifested peculiarities and ecentricities of manner and character. Pale, thin, nervous from childhood, the parents will say of such children that they have been shy, sensitive, seclusive, jealous, and reluctant to join in the sports of other children. Excessively conscientious and religious, they have been prone to brood. Emotionally unbalanced, sudden outbursts of passion occur. Of uneven caliber in school, they have shown unusual proficiency in certain subjects and great deficiency in others. As the period of puberty is approached, these individual idiosyncrasies and eccentricities have become more marked and emphasized, until they have become mental abnormalities, or some acute disease or moral shock may transform them into positive mental symptoms.

Usually, the first symptoms elicited are headache and sleeplessness, which are followed by a gradual change of disposition. The patients lose all ambition and energy, become dull and apathetic, self-absorbed and listless, or careless, irritable and obstinate. All interest in work or study is lost and they sit about unemployed or remain in bed for weeks without evident reason. Others, in place of this mental indolence and apathy, evince a marked restlessness, which, preventing any continued effort, drives them aimlessly from place to place. In others, an increased sexual excitement is aroused, and they plunge into promiscuous sexual excesses. A stage of depression is, however, the most common onset. Sad, dejected, indifferent to friends and surroundings, borne down by thoughts of death and their mental sufferings, they may make attempts at suicide. Hallucinations of hearing, sight, or smell now appear. Strange sounds, threatening voices pouring out oaths, curses, and imprecations, strains of music, telephone messages or communications from another world, fill their ears. Grimacing faces peer at them from the walls, or frightful beasts spring up before their eyes, or friends long dead appear by their side. Less frequently, they complain that they are being asphyxiated by nauseous fumes of chloroform, illuminating gas, and sulphur. Various hyperesthesias may cause

Symptoms

Depression

Hallucinations

them to believe that their limbs are changed to glass, that the lungs are solidified, or the liver turned to stone, or the bowels filled with lead. Coincident with or preceding the hallucinations, depressive delusions are liable to appear. The patients proclaim themselves criminals sentenced to death, say that their souls are lost and that they are too vile to live. Persecutory delusions also appear, causing suspicion of friends and their surroundings, fear of poison, and bodily harm. In the latter course of the disease, and occasionally at the onset, expansive delusions appear and they proclaim themselves to be the Czar, the Saviour, or the possessors of endless wealth. These delusions may have a sexual tinge, and the possessors believe themselves the chief centers of attraction to the opposite sex. All these delusions may be augmented by fabrications, but delusions and fabrications, as the disease advances, gradually fade away, until, in the last stages, only incoherent residuals remain, which seldom come to light unless during excitement or as the result of careful inquiry. Some patients, recognizing to some extent their condition, complain of strange feelings in the head that they attribute to changes going on in their brains, which produce confusion and a failure of memory; but this slight knowledge slowly disappears as the disease progresses.

Hypochondriacal persecutory, expansive, sexual delusions

In the slowly developing forms there is, at first,

little disturbance of consciousness and the patients are fairly well oriented.

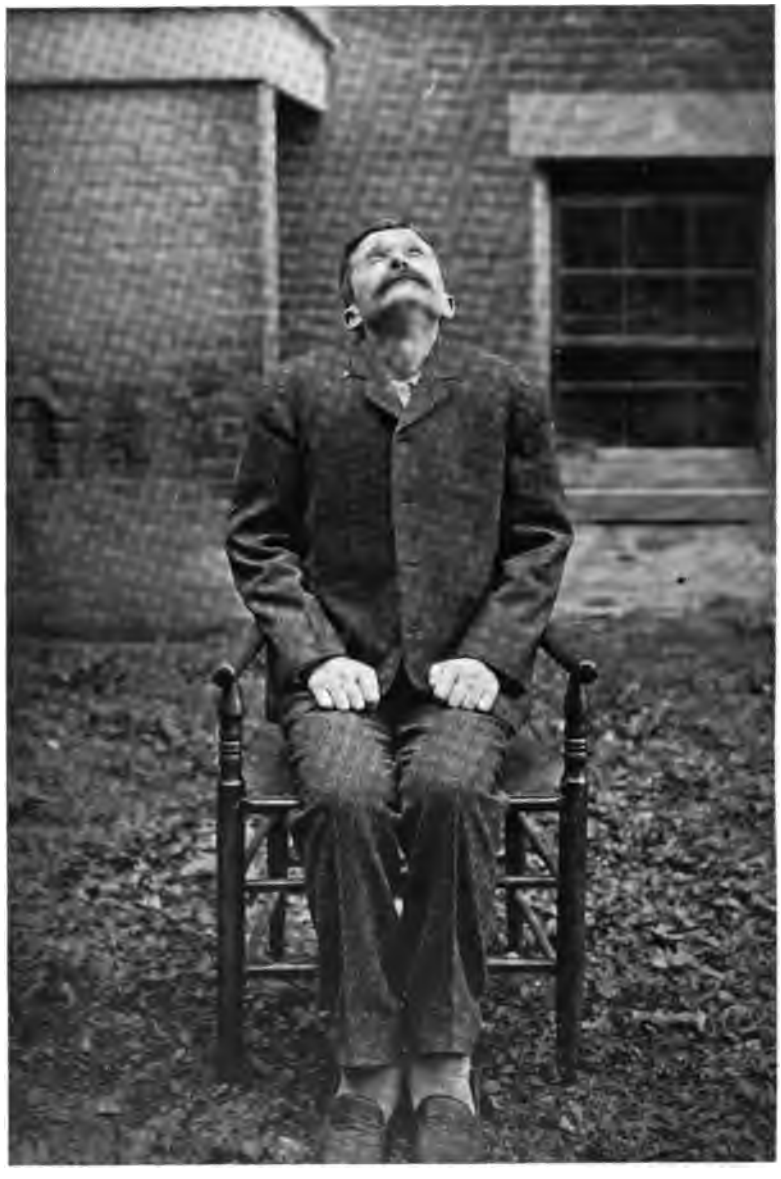
When the onset is acute, or subacute, marked clouding of consciousness and disorientation are combined with distinct hallucinations and delusions, anxiety, uneasiness, and incoherence of thought; friends and companions and familiar surroundings appear strange, and the patients are unable to take cognizance of passing events. While, at first, there may be little disturbance of the association of ideas, and the content of speech may be coherent and relevant, as the disease progresses a marked deterioration becomes apparent. Thought and speech are profoundly incoherent and disconnected, and, at last, are limited to monosyllables, or to irrelevant remarks that can be elicited only by questioning.

Deterioration

A progressive weakening of the memory appears from the onset of the disease. This is first apparent in regard to recent events. While knowledge attained in early life or at school may be retained for a long time, the events and occurrences dating from the onset of the psychosis are either entirely forgotten or imperfectly remembered. Uninterested in their surroundings or what occurs about them, the patients pay little attention to passing occurrences, and thought becomes more limited with the progress of the disease. Past experiences, from being seldom re-

Memory

Stupid indifference



MUSCULAR TENSION IN CATATONIC STUPOR

called, soon fade out of the memory, but under the stress of unusual stimulation events apparently completely forgotten may be remembered.

Judgment

Impairment of judgment is an early symptom and becomes more and more marked as the disease progresses. This is especially emphasized if the patient is removed from the home routine to which he is accustomed and placed in new surroudings.

Emotional change

Among the most diagnostic are the changes manifested in the emotional field, dulness and indifference being the most prominent symptoms. At first, depressed, anxious, peevish, and irritable, later the patient may become hyper-religious. This excitement finds expression in frequent prayers and continual reading of the Bible; first, in an attempt to atone for sins, later, from a belief that he is under especial divine guidance or has received some particular commission from God. In those who have been addicted to masturbation, the central and impelling thought may be sexual, causing the most shameless masturbation and indecent solicitations for intercourse. Later, this excitement disappears.

Death of emotion

In late stages of the disease all emotion seems dead. The visits of friends, the death of relatives, produce no impression. Devoid of care, thoughtless of the future, the patient leads an utterly empty life.

Conduct

The conduct and behaviour are a natural reflection of the mental state. Careless of dress and person, the patient will sit for hours looking at the same page of a book, or busied over a single line of a letter. He bursts out, at times, in silly laughter, or makes curious gestures or strange bodily movements. The silly laughter is highly characteristic, and utterly meaningless and without emotional significance. The patient may sit by the day rocking in a chair or staring at vacancy. When urged to do anything, he makes violent opposition, whatever the order may be, whether to leave his chair or bed, protrude his tongue, attend to the calls of nature, or take food. Occasionally, fits of violence occur, when he will break windows, tear his clothing, or causelessly attack those about him. When not under restraint, he may run away from home and wander aimlessly about the country. He may even commit some criminal act, like setting fire to buildings. Many cases are given to excessive onanism, and others are sexual perverts. Most patients exhibit certain mannerisms, peculiarities of speech and movement. They frequently contort the face with grimaces. If an attempt is made to shake hands, the patient will not grasp the extended hand, but will simply stretch out his own hand stiffly to meet it; this action is quite characteristic. All movements show a certain restraint and lack of freedom.

Paroxysmal violence

Mannerisms

Speech Letters

The speech is filled with meaningless, high-sounding phrases, obsolete words, and grammatical blunders, and reflects the incoherent thought and confusion. The letters still more reveal the mental weakness. These are filled with numerous repetitions, profuse underlining, disconnected phrases, and are utterly without sense or meaning.

The physical symptoms are numerous and varied. In the beginning, the appetite is poor, little or no food is taken, and there is marked loss of weight. Sleep is disturbed or lost. The pupils are usually dilated, the reflexes exaggerated, there is a diminution of sensibility to pain. Cyanosis, local œdema, and dermography may reveal the marked vasomotor disturbance. The menses cease or appear with irregularity. Salivation may occur and the bodily temperature be lowered. The heart's action is disturbed, and poor circulation is revealed by the cold, swollen, cyanotic hands and feet. As the disease advances the appetite may return, the lost weight be regained, and excessive corpulence succeed the emaciation. Menstruation may be re-established and the whole physical condition be improved.

Mental deterioration

The course of the disease is progressive and tends to mental deterioration. "Seventy-five per cent. become profoundly demented. In seventeen per cent. of the cases a milder degree of deterior-

Middletown N.Y. Oct 14 1908
State Hospital
Dr Ashley Dr Brewster
Paying all my respects in
this I like my place in
all and I stand up good
and work Now will you be
kind enough to keep Patrick
up the Marshall My brother
any thing you wish to give
out for Thanksgiving and
Christmas I wish to you
all a Festival and agreat
many of them New Years
coming in Giving my
respect to the new Doctor
Miss Muller Mrs Ellen
Murphy Dr Ashley's brothers
who took the Book of last
week John King Ed Dickey
Dr Ashley he said that
you said I had the Fever
yet I am telling my respect
to you all in this Dr Ashley
will you please respect my
Father and keep him back
in anything he wishes He
is age now I keep up the
Centre Hall and the Setting
Room and the Dormatory bet
ought and I also attend to
the towns clothes every week

And I walk once a Day.
I prefer to carry the sheets
and Slips to the rooms once
a week I keep my place
clean once a week and every
thing in it Please take order
that is not to have it so
much of a row Will you please
give my respects to my Husband
Mr. Richard Murphy Mrs
Ellen Murphy. Given to all
Respect- Mr Ruggers promised
to give me four pair of shoes
last fall he had it published
in Church Give my respects
to the Mayor Sargantville and
Mayor King I would be pleased
not to walk on Saturday morning
on account of the inventory
clothes coming in Dr Ashley
owed me in the Chapel Thanks-
giving and Christmas I with a
nice Package from Bridget Sn
yder, Now that Dr Ashley will you
please take orders from pulling
things out place Keep Patrick
up my brother the Marshall
he always carried luggage up
such as trunks Give Wilson his
place All Brothers and Friends
it is nice to have a Friend
in need Closing Respect to
all Dr Bateman is a friend

LETTER WRITTEN BY A CASE OF DEMENTIA PRÆCOX

CASE OF DEMENTIA PRÆCOX WITH MARKED CATATONIC TENSION

ation obtains. A few cases recover sufficiently to return to their homes and engage in certain routine employments requiring little brain taxation, but they are exceedingly liable to relapse, from their inability to properly regulate their lives. In eight per cent. of the cases all mental symptoms disappear." (Kraepelin.)

CATATONIA

The catatonic form is characterized by cyclic, alternating, periods of depression, mania, stupor, and confusion.

Depression

The first stage of the disease is usually that of depression, the onset of which may have been gradual. For several weeks, often after a slow and imperfect convalescence from acute disease, the patients have not appeared quite natural. Friends have noticed an unusual quietness and seriousness. They may complain of pains and peculiar sensations in the head, and difficulty in concentrating the mind. Insomnia, loss of appetite, and excessive nervousness also may be present. Gradually, anxiety and fear possess the patients and hallucinations and delusions develop. Voices direct the actions, heavenly visions appear before the eyes, faces peer from the walls, and poisonous fumes fill the nostrils. The delusions usually have a religious tinge, and are changeable and incoherent. Death is imminent as a punish-

Hallucinations and delusions

ment for innumerable sins. Commanded by God, the patient refuses food. He is eternally damned, has ruined his family and has been changed into a devil. The brain has been dissolved, the body and limbs have been turned to stone. Later, expansive delusions appear, or they may be present from the onset. He is immortal, omnipotent, omniscent, the possessor of millions, and can heal all diseases. Early in the disease the movements and actions become constrained. The patient may lie or stand, for hours, in some awkward position, staring fixedly at one point. Consciousness is now somewhat clouded, there is slight disorientation, and surroundings are imperfectly comprehended. While he may realize that he is at home or in an institution, he may not recognize the persons about him or everything may appear changed, causing him to believe that he has been transferred to heaven or some foreign clime. Unable to reason, because of the disconnection and incoherency of his thoughts, answers to questions are contradictory and irrelevant, and continued attention is impossible. Memory for past events, however, may be good, but is faulty regarding occurrences since the onset of the disease.

Constraint

At first, there may be marked emotional disturbance, with attacks of violence upon the slightest interference, which is later followed by in-

difference and placid contentment. Following the depression, the characteristic catatonic stupor, or catatonic excitement, appears: or the catatonic symptoms may usher in the disease, the latter being asserted by Kraepelin to take place in at least one-third of the cases. The catatonic stupor, while resembling an ordinary stupor, differs essentially, as the patient, while apparently oblivious of all his surroundings, may be keenly observant of all that occurs about him and be able, after recovery, to describe minutely all that has transpired during his attack.

Catatonic stupor or excitement

During the stupor three characteristic conditions prevail: negativism, stereotypy and pathological susceptibility.

Characteristic symptoms

"Negativism," according to Kraepelin, "consists in the reaction to stimuli which are the reverse of the normal reaction." The patients do exactly the opposite of what is required of them. The first manifestation of this negativism is usually mutism, which may continue for weeks, the patient lying with eyes closed, and, in spite of all efforts of the questioner, refusing to utter a word. The same persistent resistance is manifested against any effort to care for him. He refuses to dress or undress, get up or go to bed, open the eyes, put out the tongue, bathe, attend to the calls of nature, or eat. This condition may last for months, requiring feeding with a tube,

Negativism

Mutism

catheterization and enemata. Deep pricking of the skin, or stimulation with a strong galvanic or faradic current may elicit no evidences of sensation, not because it is not felt, but because voluntary reaction is annihilated.

Stereotypy

Stereotypy is manifested in the peculiar attitudes assumed and the general physiognomy.

The patient may stand, sit in a chair, or lie upon the floor in the most uncomfortable attitude for hours without movement. The arm may be raised or the leg extended, and, however painful its position, there is no attempt to move it. The fingers may be so tightly flexed that maceration of the palms will occur unless they are forcibly opened. The muscular rigidity may be so marked that it is impossible to move a limb without the exertion of great force. The eyes may be tightly closed, the features rigid, and the lips stretched out like a snout, a sign named by Kahlbaum the "snoutcramp."

These phenomena may persist for months, or years, but almost always in the beginning of the disease disappear during sleep.

Pathological susceptibility

Pathological susceptibility may alternate with negativism.

If an arm or leg is raised or extended, it is retained in the position in which it is placed. Incapable of caring for themselves the patients quietly submit to being washed, dressed, and combed.

Echolalia and echopraxia are very frequent. Words, questions, and songs of those about them are mechanically repeated, and the movements and actions of the physician or of their fellow-patients are closely imitated by them. From absolute silence the patient may suddenly break out into loud, prolonged shouting and incessant babbling, or, suddenly arousing from his stupor, may talk perfectly naturally and then in a few hours relapse again into the former stuporous condition.

CATATONIC EXCITEMENT

Excitement may interrupt, precede or follow the stupor. The principal characteristics of catatonic excitement are, its freedom from emotion, its independence of external impressions, the absence of definite delusions, and the universal manifestation of impulsive actions and stereotyped movements.

Automatism

In catatonic excitement, the extreme limit of automatism is exhibited. Without cause, the paroxysms of excitement break out. The patient may suddenly spring from his chair or bed, rush wildly about his apartment, destroy furniture, break windows, furiously attack his attendants, or throw himself upon the floor or against the walls. For hours at a time the body may be swayed from side to side or the patient may walk

GROUP WITH MARKED CATATONIC TENSION

back and forth over one path for a day at a time, sometimes going forward, then backward. In some patients, for weeks, suicidal tendencies are manifested, unattended by any depressing ideas or emotions. During the excitement, the patients are untidy and filthy in the extreme, often mixing filth with their food and soiling their persons, bedding, and apartments. Marked sexual excitement also may prevail. Stereotypy and verbigeration are apparent in the movements, attitudes, and conversation. All their actions and movements are purposeless and impulsive and usually independent of delusions, although delusions may occasionally be present. The speech may consist of mere senseless syllables or stereotyped expressions, repeated often for hours at a time. The same tendency is manifested in all their letters, in their excessive underlining, shading, and addition of symbols. Catatonic stupor and catatonic excitement succeed each other, often suddenly, during the complete course of the disease. The intensity of the stupor and excitement is subject to marked variation in individual cases.

Suicide

Stereotypy, Verbigeration

PHYSICAL SYMPTOMS

A moderate elevation of temperature, varying between one hundred and one hundred and two degrees, may occur at the onset of the attack and

persist for one or two weeks. Cyanosis, dermographia, and localized sweating are common symptoms. Convulsions occasionally occur at the onset of the disease. Disturbance of nutrition is apparent, in the loss of weight, during the period of depression, and may progress to extreme emaciation in the stage of stupor. Later, the weight is regained, the patients often becoming obese during the stage of deterioration. During the stage of stupor, there are coldness of the skin, and slowness and feebleness of the heart's action, and sluggishness of the bowels.

COURSE

The usual course in catatonia is depression, excitement, deterioration; but this course may vary by the omission of the excitement, the dementia immediately succeeding the stupor. In rare cases the excitement may usher in the disease. A prominent characteristic of catatonia is the occurrence of remissions, which may last from a few hours to years.

Mental deterioration

"The outcome," according to Kraepelin, "in eighty-six per cent. of the cases is ultimately mental deterioration, which in thirty-nine per cent. becomes extreme and in twenty-seven per cent. a mild form of dementia results. In about thirteen per cent. of the cases, patients seem to recover." In the most favorable cases, however, certain

remnants of the disease remain, which, while not sufficient to debar them from the world, distinguish them from normal individuals.

PARANOID FORMS

The paranoid forms are characterized by the persistence, for years, of delusions and hallucinations, with progressive deterioration.

Two principal types are recognized: (1) the incoherent type, (2) the systematized type. The first group of cases are possessed of numerous changing delusions and hallucinations revealing no coherency, which are rapidly followed by signs of mental enfeeblement.

The development of the disease may be slow, inaugurated by numerous symptoms revealing a progressive impairment of the general health. The patient complains of pains in the head, sleeplessness, lack of energy, and inability to work. He becomes irritable, moody and depressed, and shuns society. Soon a multitude of delusions appears. All his movements and actions are criticised, people stare at him. When he is on the street the police are following him and his friends are plotting against him. Continually changing, the delusions soon become fantastic: the heart has been removed, the bowels are filled with lead, the limbs paralyzed. Hallucinations of hearing, sight, or smell may be present

Delusions

Dangerous

Voices accuse him of crimes and telephone him insulting messages. Fearful forms terrify him at night, and poisonous vapors are blown into his apartments. Worried, disturbed, and mistrustful of everyone, the patient may become violent and dangerous or seek escape from his persecutors by suicide. The consciousness usually remains undisturbed. The depressed and anxious mood is soon superseded by cheerfulness and exaltation. The delusions take on a like character and grow more improbable and ridiculous. The patient becomes cheerful, pompous, loquacious, and boastful, has been changed into a god, is destined to live forever, is the possessor of millions, and the most talented of mortals. Filled with a variety of delusions, he pours them forth freely into the ears of any willing listener; at first coherently, later in an incoherent jumble. Questions, however, may be answered correctly. As the disease progresses, speech becomes unintelligible and consciousness clouded. While he may recognize friends and his location, he is liable to mistake his associates for people formerly known. All idea of time is lost and mental application is impossible, although some simple mechanical work may be performed. Pompous, egotistic, and self-conscious, he is seldom depressed, although he may at times be restless, irritable, and given to fits of passion. Aside

Grandiose delusions

from the sleeplessness and loss of weight, at the onset of the disease few physical symptoms are apparent.

Course progressive

The course of the disease is continuously progressive, evidences of mental deterioration appearing within a few months and becoming emphasized by the end of two years.

Persistent systematized delusions terminating in deterioration

The second group of cases is characterized by hallucinations and delusions more coherent and systematized, which may persist for several years; upon their disappearance the patient is left moderately deteriorated. Hallucinations are common and affect all the senses. The delusions are melancholic, persecutory, or megalomaniacal. The delusions may appear suddenly after a brief prodromata or be of slow development. During the development of the disease, and often for a long time after, the patients are oriented, their consciousness is clear and thought coherent. At first slightly changed in character, the patients later present melancholic delusions more perfectly systematized than in ordinary melancholia, succeeded by persecutory delusions, which are followed by delusions of grandeur, ending in more or less pronounced dementia, with confusion of thought, the delusions becoming changeable, incoherent, and finally fading away. Although the stages may vary in their order of appearance, the outcome is always deterioration.

DIAGNOSIS

Dementia Paralytica

Dementia præcox is distinguished from dementia paralytica by the earlier age of onset, its etiology, less rapid deterioration, and the absence of the physical signs characteristic of paresis.

Paranoia

It is distinguished from paranoia by the less perfect systematization of the delusions, the dementia, its earlier appearance, and its more rapid course.

PROGNOSIS

The prognosis is unfavorable. Remissions frequently occur and a few cases may partially recover, remaining for years slightly demented. The majority terminate in marked mental deterioration.

TREATMENT

The majority of these cases are better off in institutions, as many of them are with difficulty cared for at home. When kept at home, they should be put to bed and carefully watched day and night, to prevent suicide. Especial attention must be given to baths and the care of the person. Easily-digested food, in liberal quantities, must be administered at short intervals, by the nasal tube if necessary. The bowels and bladder must be given especial attention, as the patient is liable to neglect them.

Suicide

From the great variety of symptoms of the disease almost any homœopathic remedy is liable to be indicated at some time during the treatment.

The remedies most likely to be demanded are aconite, arsenicum album, belladonna, calcarea, carbonica, china, hyoscyamus, ignatia, nux vomica, picric acid, phosphoric acid, stramonium, staphysagria, sulphur, veratrum album.

Dr. Tyson

During the past three years, Dr. H. O. Tyson, surgeon to the New York Ophthalmic and Aural Institute, New York City, and Dr. L. Pierce Clark, Senior Attending Physician to the Hospital for Nervous Diseases of New York City, have made an exhaustive study of the eye symptoms of dementia præcox. The result of their labors was presented to the public in an article printed in the Journal of the American Medical Association, May 2d, 1908, Vol. L., pp. 1415-1417. As these findings throw much light upon the actual character of the disease and will be of much prognostic value, we append them as presented in a reprint kindly furnished us by Dr. H. O. Tyson.

Oeular signs

"Three years ago we undertook an independent research on the significance of the ocular signs and symptoms in dementia præcox. We have analyzed 115 consecutive cases. The work was undertaken with the view that a careful analysis of the eye symptoms in dementia præcox

might throw some definite light on the uncertain and perplexing pathogenesis of the disorder. In this respect, we believe we have not been disappointed, inasmuch as we have found definite changes and symptoms in all cases which are fully distinctive of this psychosis.

"The fundus changes as seen clinically may be divided into three groups, which are usually in the order of their occurrence, as follows:

Perineuritis of the Optic Nerve

"1. Congestion of discs: hyperemia and edema; dilated, dark colored veins; slightly contracted arteries and blurring of the edges of the discs, all varying in degree. These changes constitute a low grade of perineuritis of the optic nerve.

Congestion of the Nasal Side

"2. Congestion of the nasal side, with temporal pallor of discs, dilated veins, contracted arteries.

Anemia and partial atrophy of the Optic Nerve

"3. Pallor of discs, dilated veins, contracted arteries. These changes constitute anemia and partial atrophy of the optic nerve.

"One hundred and nine cases were examined with the ophthalmoscope; 55 were males and 54 females. The ages of the males were from 12 to 47 years, and those of the females were from 13 to 39 years.

"All the different forms of dementia præcox were under study. While the results by form-types have not been fully analyzed, we are pre-

pared to say that the more marked changes in the eye syndrome were found in the more rapidly deteriorating types of dementia præcox.

"The cases embrace those who have used alcohol and tobacco moderately or to excess, as well as abstainers. It is possible that alcohol and tobacco have contributed toward the clinical picture in some cases. In differentiating the pathologic condition of the optic nerve in tobacco and alcohol users from those in cases of dementia præcox one observes central scotoma in the former. The one case showing a central scotoma for red in dementia præcox gave a history of alcohol and tobacco excesses. The disc changes in dementia præcox have some resemblance to those seen in the toxic amblyopia of tobacco and alcohol. But the fundus changes above detailed are seen in all cases under study. There is strong evidence that some other potent toxin is responsible for the disc changes in dementia præcox. We do not hesitate to say that we believe the toxin is primarily a vascular poison. Its most probable source is in the autointoxication (intestinal putrefaction is almost invariably evident from clinical symptoms) from the intestines or from the liver. It is possible that a faulty metabolism from a perverted action of some of the ductless glands (thyroid especially) may be the pathogenic agent. The primary departure

Vascular poison

Veins from the normal in the disc is in the veins. They become dilated, tortuous and darker than normal. Edema of the disc appears shortly afterward. These changes are analogous to those seen in the passive congestion of the face and hands in dementia præcox cases. All these edemas produce such lasting disturbance in the nutrition of the optic nerve that slow degeneration of the nerve fibers finally results. Thus, of the 109 cases examined by the ophthalmoscope, a low grade perineuritis was found 62 times in the right eye and 67 times in the left. Temporal pallor, with nasal side congested, was found in the right eye 10 times, in the left eye 11 times. Pallor of discs was found in the right eye 37 times and in the left eye in 31 cases.

"Inasmuch as the disc changes in the first stages resemble somewhat those seen in ordinary intestinal toxemia, we have repeatedly examined the discs in a number of cases while the patients were under active hygienic treatment of free catharsis, intestinal antiseptics, baths and dietetic regulations. A marked degree of betterment was noticed of the congestive margins of the discs, but the central edema and transitional pallor have continued. Indeed, while patients were under this treatment, a general physical improvement was noticed, but the mental state seemed little improved.

"Coincident with the study of the changes in the papillæ, the pupils were examined in 85 cases. *Pupils* The changes uniformly found were not less significant. The examinations were made in moderately light rooms with the eyes fixing a distant object. The size of the pupils varied from 3½ mm. to 7 mm., with an average of 4 77-85 mm., while the average of the control pupils (physician and attendants) was 3 68-85. An average enlargement of 1 9-85 mm. for dementia præcox over the normal was evident.

"The light reaction was active in 71 cases and sluggish in 14. Consensual reaction was active in 68 cases and sluggish in 17 cases.

"Accommodation and convergence were active in 71 cases and sluggish in 14. Hippus was present in one case.

"The sensory pupillary reflex was slightly positive in 6 cases and negative in 79 instances. *Reflexes* The psychic reflex was slightly positive in 4 cases and negative in 85 cases. Piltz-Westphal reflex was positive in 23 and negative in 85 cases.

"Great care was exercised in measuring the pupils on account of the tendency of the eyes to change their visual lines. One is apt to complicate the accommodation and convergence reflex with the other tests. The negative reactions of the pupil appear to be due to: (1) loss or partial loss of function through defective nerve innerva-

Pupillary reactions

tion; (2) defect in attention; (3) diminished apperception.

"Corneal sensibility was diminished in 69 cases and present in 17.

Color fields

"The visual color fields were examined in 81 cases. All were found concentrically contracted. The largest field was 30 degrees. The smallest 0 degrees. The fields were practically abolished. The average of the 81 cases was 10.6 degrees, which was a marked contraction from the normal. This may be explained partially by the inattention of those patients, diminished capacity for externalization and finally, and not least, by the edema and congestion of the optic nerve (perineuritis) in the first stage of degeneration of the nerve and by the ultimate shrinkage of the new connective tissue in the partial atrophy of the nerve.

"The changes in the discs, pupils, visual fields and corneal sensibility, which, when taken together, constitute the new syndrome, are all in accord with each other. In our examination of all other types of insanity, imbecility or idiocy we have found no other condition similar to what we have outlined here for dementia præcox.

"The clinical significance of these findings is of importance:

"1. They indicate that dementia præcox is attended by such an early and constant syndrome

of alteration and disc, visual field, pupil and corneal sensibility as to materially aid in diagnosticating this psychosis. Consideration of the syndrome will particularly aid in the differential diagnosis of dementia præcox from the manic-depressive group, acquired neurasthenia, hysteria and the various forms of imbecility and constitutional inferiority.

Important in diagnosis

"2. The syndrome is a distinct contribution to the theory that dementia præcox is an autotoxic disease and that the poison is primarily vascular, which finally induces neuronic degeneration. It points to a toxin of some sort, which is either a metabolic defect in the tissues (ductless gland defect) or, what seems more probable, that the poison is generated in the liver or in the gastro-intestinal tract itself.

Autotoxic disease

"3. The syndrome is of prognostic value, as the severer grades of eye changes are found in the more rapidly deteriorating cases.

Prognostic value

"4. Finally, the optic nerve lesion is quite in accord with our best knowledge of the pathologic anatomy of dementia præcox in other tracts of the brain (than the optic nerve, which itself may be counted an analogue). The early vascular changes in the brain ought to receive more serious investigation."

Pathologic Anatomy

CHAPTER X

DEMENTIA PARALYTICA

Typical Psychosis of 20th century

The most fearful of all the mental scourges, dementia paralytica may be regarded as the typical psychosis of the hustling, bustling, wild-scheming life of the twentieth century. Falling upon its victims in the full maturity of their mental and physical powers, when bending beneath the heaviest of life's burdens, it represents the culmination of overstrain from work, worry, and dissipation of every form and shape. Varied and multiform in its ravages of brain and cord, when once its hand has been laid upon its subject his doom is sealed.

Monomania

Wide and extensive as is the knowledge of this disease to-day, its history as a distinct psychosis is comparatively short. In 1815, Esquirol, under the head of monomania, noted the fatal nature of paralysis with failure of speech. In 1822, Boyle wrote regarding the muscular and mental signs of these cases and, in 1825, concerning the motor and speech disturbances, but referred them to arachnitis or chronic meningitis. The first careful description of the disease under the title of paralysis observed in the insane, was given by

Calmeil, a pupil of Esquirol, in 1826. Not until 1843 was it recognized in this country. In that year Dr. Luther B. Bell, of the McLean Asylum, near Boston, reported several cases of the disease, all of whom died. In 1847, Dr. Pliny Earle, at that time of the Bloomingdale Asylum, and about the same time Dr. Bingham, of the Utica State Hospital, published some cases of the disease.

Since its discovery, much study has been given to the disease and much has been written about it by alienists of this country and Europe. One of the fullest and most complete of the older works on the subject, is that of William Julius Mickle, of London. The most recent complete treatise is by Dr. Robert Howland Chase, of Philadelphia.

William Julius Mickle

The synonyms of dementia paralytica are paretic dementia, paralytica dementia, general paresis, paresis, general paralysis, general paralysis of the insane, progressive paralysis of the insane.

Synonyms

Other titles are progressive general paralysis, progressive general paresis, paralytic insanity, progressive paralysis, diffuse interstitial periencephalitis, paralysis generale des aliènes, folie paralytique periencephalo-meningitis diffusa chronica (Calmeil), paralyse der irren, paralytischer blödsinn, allgemeine paralyse der geisteskranken, psicopatia paralitica (Morselli).

GROUP OF FEMALE PARETICS

Definition.—Chase defines the disease as follows: *Chase's definition*

"General paresis is a subacute or chronic degenerative disease of the brain, often extending to the spinal cord and the large nerve trunks. It is marked chiefly by progressive enfeeblement of the mind and concomitant paresis of the entire body. Mentally, there is moral and intellectual perversion with an abnormal sense of well-being or actual delusions of exaltation followed by slow dementia, to which is generally superadded insanity of the maniacal, melancholic, or confusional type. Physically, there is gradual development of tremor, pupillary changes, loss of coordinating power, especially of speech and gait; trophic complications; occasionally, epileptiform or apoplectiform seizures; and finally paresis.

ETIOLOGY

As might be expected, a great variety of causes have been cited, by various authors, as productive of this disease. Perhaps no more condensed summary could be given than the following of Chapin, in his "Compendium of Insanity": "The history of the large majority of cases is one of intemperance, licentiousness, sexual excess, syphilis, or some nervous exhaustion incident to excessive application to business or the great strain attending reverses." *Chapin*

The numerous agencies, more or less potent, may be arranged as predisposing and exciting causes.

PREDISPOSING CAUSES

Among the predisposing causes are heredity, time of life, sex, race, occupation, social position, and the unmarried state.

A great divergence of opinion exists among authorities as to the part played by heredity as a predisposing factor. Some writers place it as low as ten per cent., while others assert that seventy per cent. of the cases are owing to its influence. The convergence of opinion seems to agree with Clouston's assertion, that hereditary predisposition to insanity is less common in this disease than in the ordinary forms of insanity. Kraft-Ebing maintains that the predisposition is acquired and not hereditary.

Clouston

Regis

Regis asserts, that the disease has its source in an heredity that is not vesanic but cerebral, arthritic, or congestive. He also claims that consanguinity constitutes a predisposition to paresis. The percentage of heredity is, moreover, found to be higher among female than male paretics and among pauper than private cases. Paretics usually leave small families, one-third of the marriages being sterile and the families of the remaining two-thirds averaging only one and one-half child.

Age.—Paresis is a disease of middle life, occurring usually between the ages of thirty and fifty-five, when the mental and physical powers are at their zenith and life's burdens are the heaviest and its strains the greatest. It is rare before twenty-five and very infrequent after sixty. In women, the disease develops from three to five years earlier. Infrequent cases have been reported in children as young even as eleven and twelve years and in men as old as seventy-five, yet these are the rare exceptions and not likely to be encountered. *Disease of middle life*

Sex.—Paresis occurs much more frequently in men than in women, the relative proportion varying as to country and social standing and as to rural and city life. In Germany, the average is between eight to one and four to one. In France, the proportion of women is distinctly higher. In our own country, we find in the New-England asylums four males to one female; in New-York asylums (exclusive of New York City) about nine to one; and in those of Michigan, thirteen to one. Among women of the higher circles of society the disease is very rare. *Men*

In rural populations the disease is much less common and there is a slighter disproportion between the sexes. In the country districts of France, Regis found it only one and a half times more common in men than in women, and *Country vs. city*

Stearns, in the States of Maine and Vermont, discovered one female to three male paretics. In cities the disease is not only relatively more frequent, but there is a much greater disproportion between the sexes, especially among the higher classes. According to Regis, for instance, it is thirteen times more frequent among the men than among the women of the same class. The disease is found, however, to be on the increase among women, especially among those who have entered into competition with men in occupations formerly exclusively carried on by the males.

Anglo-Saxon

Race and Social Influences.—So rare is paresis in certain countries that for a time it was thought to be confined to certain races, especially to the Anglo-Saxon. Further experience has shown that its rare appearance among certain people is owing more to their life and surroundings than to their nationality. To the Scotchman in his highlands and the Irishman on his native bogs the disease is unknown, but transport the Scotchman to an English factory or mine and the Irishman to an American city and each falls an easy prey to this dread monster. In slavery a colored paretic was unknown, but now, freed and transplanted to cities, paresis claims the same percentage of negroes as of whites. In Norway and Sweden the disease is seldom found. In France and Germany the brainworkers are its frequent prey. In

Product of city life

England and America the tiller of the soil is comparatively free, but move him to the city, with its whirl, bustle and rush, and he immediately is endangered. As Berkley has aptly said: "It is in the cities, where rum and syphilis dwell in close fellowship, where the strife and excitement of modern civilization is ever at flood tide, that general paresis is rife."

Spitzka

Spitzka, from a careful study of 2,297 indigent insane in New York City, gives the proportion of general paretics by nationalities as follows: Anglo-Saxon, 13.20; Celts, 11.58; Germans, 11.13; Hebrews, 10.29; negroes, 8.82. The result of his studies is formulated into the following conclusion: "The conclusion will seem reasonable that general paresis is more frequent with races of a high than of a low cerebral organization, because their higher civilization induces a restless mental activity and its attendant emotional strain. General paresis, therefore, is not a penalty of high cerebral development, but the expression of a discrepancy between the instrument and its purpose; of the inadequacy of some brains to support the strain to which the race, as a whole, is subjected."

Unmarried

The disease is found more frequently among the unmarried. Among women, prostitutes are its most common subjects. The married victims are, fortunately, as a rule childless. Occasion-

ally, paresis appears in man and wife; sometimes tabes is present in one and general paralysis in the other.

EXCITING CAUSES

Among the most important exciting causes of paresis may be mentioned syphilis, alcoholism, sexual excess, great nervous strains, trauma, and sunstroke.

Syphilis.—As to the importance of syphilis as an exciting cause, a great divergence of opinion has been expressed by reliable authors. The following conclusions of Peterson, after a study of seventy different authors, may be regarded as probably correct:

Syphilis

"1. A history of syphilis is found in sixty to seventy per cent. of cases of general paralysis of the insane.

"2. The fact must not be lost sight of that in thirty to forty per cent. of these cases no history of syphilis, congenital or acquired, is to be found.

"3. Antecedent syphilis is seven to ten times more frequent in general paralysis than in other forms of insanity.

"4. Syphilis is, therefore, to be looked upon as a frequent, but not constant, factor in its production.

"5. But paralytic dementia is not a form of specific disease, not a late syphilitic manifesta-

tion, nor is it a form of degeneration depending upon the syphilitic poison for its origin. *Not a specific disease*

"6. The relationship of syphilis to general paresis lies in the facts that it is a widespread disorder in all communities, that it weakens the constitution and vitiates the blood in many whom it infects, and that the system is thus prepared in many cases for the direct operation of the final etiological factors of general paresis—viz., alcoholism, excessive venery, heredity and mental overstrain and excitement."

Another important factor in the production of paresis is alcoholism. Mickle attributes to intemperance 21.4 of the cases of this disease, while some statistics give as high as thirty per cent. *Mickle*

As to the prominence of sexual excess as a causative agency there is a great divergence of opinion. In 4,284 cases, Mickle found only 2.5 per cent. of the cases owing to this cause. Dercum asserts, that in the majority of the cases sexual excess is to be looked upon as an effect of the disease and not as a cause. *Dercum*

The most important of the exciting causes are great nervous strains, produced by overwork, overexertion, intense and prolonged worry, disappointments, serious and apparently hopeless reverses of fortune; in fact, all causes that tax to the uttermost the emotional and intellectual faculties. *Nervous strain*

Trauma sunstroke

Among the other important direct excitements may be named trauma and sunstroke. In 4,284 cases, Mickle found 280 attributable to injury and 97 to sunstroke.

Other less frequent causes are lead poisoning and excessive use of tobacco. Occasionally, the disease can be traced to the effects of acute illnesses, such as fevers and pneumonia. In addition to the causes already mentioned, Kraepelin assigns much importance to autointoxication, claiming that many of the symptoms of the disease are produced by the sudden overwhelming of the cortical neurons with a toxin, but admits that the character of the toxin and the sources from which it arises are questions still in doubt.

Kraepelin Autointoxication

The very early indications of paresis are frequently so slight and ill-defined as to escape recognition. There are two accepted forms of onset, the gradual and the sudden. In the latter, without warning, a sudden attack of acute mania or an epileptiform or apoplectiform seizure may usher in the disease. It is probable, even when some violent shock or accident has been credited with the beginning, that some unrecognized vague warnings have preceded the real onset. The disease has been variously divided by different authors, some separating it into two divisions, others into four or five. It is, therefore, apparent, that such divisions are merely

artificial and the demarkations may not be readily discerned in practice. As an aid in the study of its evolution and for purposes of clinical description, we shall separate it into four typical divisions:

(1) A prodromal stage.

(2) A stage characterized by fibrillar tremblings, slight incoordination of the muscles of speech and facial expression, and mental exaltation with excitement.

(3) A stage of muscular incoordination and paresis with mental enfeeblement.

(4) A stage of advanced paresis, with little power of progression, almost inarticulate speech, and at last paralysis with mental extinction.

PRODROMAL STAGE

The mental symptoms of the prodromal stage are exceedingly insidious and may for a long period be imperceptible except to the closest friends and associates of the patient. A gradual weakening of the mind and a change in the disposition are the first apparent mental symptoms. These changes, at first very slight, soon become more and more at variance with the normal proclivities. Spitzka mentions the case of an intelligent merchant in good social standing, who acquired an ambition to become a pugilist, frequented low places of amusement and taverns,

Mental weakening Change of Disposition

and became acquainted with several prize-fighters to whom he paid large sums to be allowed to beat them. The patient forgets names and faces and loses his natural precision and methodicity. Unable to fix his attention for any length of time, he makes mistakes in his business transactions and forgets his business engagements. Moderate exercise produces unwonted fatigue of mind and body, and if long continued may end in great confusion of ideas. Still, he may be able to converse rationally and follow out in a fairly correct manner the routine of his daily life, if its duties be not too intricate or exacting. He is, however, defective in initiative action and new projects cannot be carried out with success. Many of the mistakes made during this period result from forgetfulness, as is seen in the case of a physician who prescribed sixteen grains of tartar emetic instead of one-sixteenth of a grain. This loss of memory not only is shown in the forgetfulness of recent events and proper names, but is apparent in his writing, in the misspelled words, omission of letters, and the leaving of words out of sentences. It also leads to incongruity of conduct, disregard of personal rights, and neglect of social duties and courtesies. Hammond relates, as an early symptom, the case of a gentleman who stole the silver forks and spoons from the tables at which he was invited to dine and at length was

Mistakes in business

Forgetfulness

Hammond

detected with a silver sugar-bowl in his pocket. "We see, in short," says Lewis, "in his whole manner of life, a weakening of mind, such as may be noted in the commencement of senile dementia, but which, occurring in a fine and vigorous man of, it may be, thirty-five, too surely indicates the ruin, even now, commencing." At first merely cross and irritable, he soon becomes subject to sudden outbursts of violence from the slightest causes, but may fail to be affected by events of vital importance. Spitzka mentions a patient who threw a knife at the servant because she took his plate away before he had, as he alleged, finished, but who heard unmoved, a few hours later, of the collapse of a large business undertaking, which involved a loss to him of over a hundred thousand dollars. A complete change in the man's normal mentality slowly occurs. His habits of life are diametrically changed. Previously neat and tidy in person, he becomes careless and slovenly in appearance.

Lewis

Violence

Change in mentality

Formerly honest and truthful, he now lies without object and may steal things for which he has no possible use. This is sometimes called the medico-legal stage, because this moral perversion often leads the person into difficulties with the legal authorities. Frequently, the nature of the case is not perceived and the transgressors are treated as ordinary criminals. Chase mentions

Medico-legal stage

the case of a plumber under his care, who was arrested for fraudulently tapping a city gas-main without a certificate, nearly a year before clearly discernible symptoms appeared.

Drunkenness

Temperate and sober all his life, he now suddenly becomes addicted to frequent and prolonged drunken debauches.

Sexual excesses

Exceedingly erotic, he plunges into sexual excesses. This sexual excitement may cause the patient to commit acts in such open violation of public decency as to bring great disgrace upon himself and family. One case that I examined a few years ago and pronounced a paretic and unfit to be allowed at large, had shown so few mental symptoms that his friends disbelieved my statement and refused to restrain him. Within a few hours after my visit, he openly insulted a lady upon a street-car and was arrested and sent to jail. His release was granted upon my certificate of his insanity, and he was committed to an asylum, where he died in a short time with the disease fully developed.

The extent to which sexual excess is carried in some cases, seems almost incredible. The wife of one paretic told me that her husband had had connection with her sixteen times in one night. Mickle mentions one patient who, "in the space of a week, engaged in about fifty acts of marital coitus with full seminal ejaculation on

each occasion." In other cases, early loss of sexual desire and power occurs.

Yet, up to this stage of the disease, the friends may be in doubt whether to ascribe the conduct of the patient to sin or disease.

The early physical symptoms of this stage may be so indefinite as to be regarded as purely functional or mistaken for those of neurasthenia or uncomplicated cerebral asthenia. Stearns tells of a paretic who, unable to attend to business on account of restlessness, was treated by the family physician for malaria.

Immobility of muscles of face

Often, the first physical symptom manifested before any mental disorder appears, is a peculiar immobility of the muscles of the face. This produces a stolid mask-like expression. In speaking, there is an unnatural stiffness of the upper lip, with a tremulousness of the lips and tongue and more or less disturbance of the speech. The speech affection may be merely a slight hesitancy, a stammering, or an inability to pronounce distinctly. This peculiarity of speech arises from an ataxia of the speech muscles, together with incoordinated impulses from the cortical motor speech center. This disorder of speech may be but slight, but suggests the marked impediments which appear in the more advanced stages.

Speech

This peculiar stiffness of the upper lip may appear very early, and when present I have come

to regard it as almost diagnostic. A few years ago I had a patient brought to me with this symptom and with no positive mental symptom of the disease except a slight tendency to enlarge his business ventures, and this quite within the bounds of reason; and for weeks no other symptoms appeared, until suddenly a large number of epileptoid convulsions occurred, from which the patient emerged with the disease fully developed, and died within a few days.

Altered appearance

Frequently, these peculiar muscular changes may not be present, but there is an alteration in the patient's ordinary manner and appearance. The face may be unusually pale, or may exhibit an unaccustomed flush, or may become fat and devoid of its natural expression. Physically, he may seem weak. Frequent headaches, with fullness, pressure, and constriction of the head, and attacks of giddiness appear. Pain in the limbs, body, and trunk, rheumatoid, neuralgic, or simulating the lightning pains of locomotor ataxia, are often present. The patient complains of being tired; all labor, physical or mental, is performed with difficulty.

Sense disorders

Insomnia is frequent; or, if sleep is obtained, it is disturbed by dreams and nightmares or is unrefreshing. Various sense disorders may prevail, as local anesthesias or paresthesias, or as affections of the hearing, or as alterations of the

senses of taste and smell. The tendon reflexes may be diminished, lost, or exaggerated, with loss of cremasteric reflex and testicular insensibility. Digestive disorders may be present, such as gastric crises, capricious appetite, and irregular action of the bowels.

Menstruation

In women, menstrual disturbances are common, either dysmenorrhea or amenorrhea, the latter occurring most frequently.

Pupils

Pupillary anomalies (contracted, irregular, sluggish, or unequal pupils) are mentioned by Griesinger as antedating other symptoms for a long time.

Campbell Clark records a case in which the only motor symptoms observed for years were small pupils, tremor of the tongue, and of the left depressor alæ nasi.

Convulsions

Among the gravest of the prodromal symptoms are epileptiform or apoplectiform seizures. A Boston lady was treated for four years with bromides for epilepsy, before the true diagnosis of paresis was made.

Berkley's summary

Berkley thus tersely summarizes the prodromal symptoms: "When a man, in early middle life, comes before us who has shown a recent alteration in his whole character, restlessness, irritability, together with utter indifference to the needs of others, and pronounced egoism; and when on examination we can demonstrate the presence of

pupillary anomalies and abnormalities in the deep reflexes, we are fairly safe in concluding that we have to deal with a paretic."

One to three years

The duration of the prodromal stage is from one to three years or may be much longer. The cases in which it is limited to a few weeks are exceedingly rare and questionable. The difficulty of definitely fixing the length of this period is enhanced by the tendency to remissions.

After an indefinite prodromal period, the disease passes, either gradually or abruptly, into the first stage of the established disease.

Mental failure increased

In this stage many of the symptoms presented in the initial period are more marked than before. The mental failure is emphasized by increased enfeeblement of the memory,—especially for recent events,—of the power of attention, judgment, and will. The patient is now unable to appreciate the actual circumstances in which he is placed or to recognize his own relations to his business or to the people by whom he is surrounded. The egotism and boastfulness of the prodromal period are increased and everything is greatly exaggerated. The patient passes from a condition of alteration into that of alienation.

Most extravagant delusions now make their appearance. His whole bearing and manner evidence his self-satisfied state of mind. He is very exalted, boastful, and loquacious. He uni-

formly declares that he is enjoying the best of health. Everything appears to him in the most roseate hue. He declares that he is a person of the highest rank, is possessed of endless wealth, and has no equal in beauty and physical strength. If the patient is a woman, she is endowed with wondrous personal beauty, is the mother of myriads of children, or is the fortunate possessor of numberless husbands and lovers. The characteristic of these delusions of grandeur is, that they are imperfectly systematized, feebly held, and changeable. The patient who is the President of the United States to-day may announce himself to-morrow as the God of gods and the Creator of the universe. He may reckon his wealth to-day by hundreds of thousands and to-morrow by millions of billions. While these expansive delusions are, at first, within the range of possibility, they soon pass into the realm of absurd imagination. "One patient asserts that he could easily run six hundred miles in a minute; that he can fly; and that by cutting out his entrails he should make himself so light that he could jump a mile and by constant springing could mount higher and higher; that he can speak all languages." (Sankey.) "A woman insisted that she was the wife of the Saviour, also, of a certain duke; that she had other husbands, more than a million; that

Delusions of grandeur

God gave her many rare jewels; that she had twenty Koh-i-noors." (Sankey.) "Another patient drives the largest engine in the world, drawing a thousand palace cars, all lined with gold and trimmed with pearls, which encircles the globe every twenty-four hours, stopping only at New York, San Francisco, Calcutta, Paris, and London. He now has formed a chicken trust to extend over the whole earth and will reconstruct the social system of the world, so that only the Chinese will be employed in hatching the eggs. Another has a most wonderful herd of cattle, with horns forty feet high, with eyes of diamond, with feet of gold, and each cow produces five hundred pails of milk in twenty-four hours, the patient himself milking a thousand a day." (Defendorf.)

Acute delirium

This stage may be ushered in with maniacal excitement, at times reaching the degree of acute delirium, from which the patient may pass into a comparatively rational state. Several of these attacks followed by remissions may occur, leaving the mind each time more clouded.

More rarely in this stage, melancholia with hallucinations, refusal of food, and persecutory delusions may occur or the stuporous type may appear. There is also a hypochondriacal type, in which the delusions are depressive instead of grandiose. This condition has been called

micromania in contradistinction to megalomania. In this condition, the delusions are equally as absurd, extravagant, unstable, and unsystematized as in the expansive form. "The person who was emperor of the world one day is the poorest beggar the next; the creator of the universe yesterday has sunken into the deepest pit of perdition to-day; and another who had the best brains, a stomach that could accommodate tons of the rarest delicacies, and boasted of having a most powerful body, wakes up in the morning to the discovery that his brains are running out and that his stomach is gnawed out by wild beasts." (Spitzka.) *Micromania*

The general health of patients in this stage is good. The food is enjoyed and the sleep at night is sufficient and restful. On account of the great restlessness during the day, the patient may, nevertheless, lose flesh and have a worn, fatigued look. The diagnostic physical symptoms are to be observed in the defective speech, pupillary anomalies, and tremor. *Health good*

The alteration in the speech may at first be very slight and scarcely discernible. The speech is at first slower than normal, the enunciation is more labored, and there is a lack of promptness. This condition is soon followed by a slight thickness, a blurring of the consonants, and an indistinctness in pronunciation. The ideas also are *Speech*

somewhat incoherent. At first the hesitancy of speech and the slight impediment is noticed only when the patient is fatigued, but, in the latter part of this stage, it becomes more noticeable and the speech muscles become more and more uncontrollable.

Pupils The anomalies of the pupils vary. In some patients there is a constant inequality, in others it only occasionally is observed. In still other cases, they are contracted, with more or less sluggishness, to light. The shape may be irregular in one, or both; either habitually or occasionally. There is, occasionally, dilatation of the pupils, but this is less common. Whatever the condition of the pupils, irresponsiveness is nearly always observed.

Face The facial expression now undergoes a change. The natural lines of intelligence are smoothed out and partially obliterated, producing the so-called "petrified face." When an attempt is made to speak, the eyebrows are raised and there is a slight contraction and tremor of the occipito-frontalis. The complexion may be dull and leaden or have a coarse and greasy look.

Gait The gait shows a slight unsteadiness and the patient walks with a shambling uncertain step, as if the knees were tired. Going up and down stairs is difficult and the patient often trips on uneven surfaces.

Tremor

Tremor is a prominent symptom in this stage, commencing in the muscles of the face, the lips, and the tongue, and gradually involving the hands and limbs. This tremor of the hands prevents the following of any occupation requiring the delicate adjustment and control of the fingers, although the handwriting may be comparatively steady throughout the stage.

SECOND STAGE (THIRD PERIOD)

Increasing mental enfeeblement

This stage is characterized by a steadily increasing mental enfeeblement. Conversation becomes more and more difficult. Many of the previous speech symptoms are intensified. The words follow one another slowly and are badly connected. The speech is drawling, halting, stumbling, and may resemble that of a drunken man. The labials and linguals are pronounced with great difficulty, as may be seen from the attempted pronunciation of such words as "perambulator," "artillery," "electricity," or "Methodist Episcopal." A change may be noticed in the quality of the voice also, evidenced by hoarseness, change of pitch, hollowness, roughness, or weakness. Often, the voice is monotonous, all of the words being equally intoned or they may be uttered with an evident propelling force.

The delusions of grandeur or depression of the previous stage become fainter and fainter, and

finally are completely lost. Every expression and every movement reveals the increasing dementia. If the patient attempts to walk, he stumbles and staggers. The truncal muscles are weak and irregular in action and the body settles upon itself, as seen in advanced age. Completely oblivious of his surroundings and the calls of nature, the patient becomes filthy in the extreme. The features are fat and flabby, with the natural wrinkles and folds of the skin effaced, and the vacuous expression of the face reveals the deep dementia which now exists. Occasionally, the features are distorted by tremors and spasmodic twitchings, but these correspond to no emotion of the patient. Occasionally, there is an automatic grinding of the teeth. The pupils may be small and contracted, or dilated; as a rule, unequally. The response to light is imperfect or wanting. The tongue can be protruded only in a jerky manner with great effort, and fibrillary movements, on each side of the mesial line, may be distinctly seen. Gross and brutish in his manner of eating, care must be taken to prevent the patient's choking.

Dementia

Bedsores

Bed sores are liable to form, also boils, carbuncles, blebs, herpes zoster or the hæmatoma auris. Apoplectiform and epileptiform seizures also frequently occur, during this stage, but are not usually followed by any permanent loss of power.

THIRD STAGE OF THE ESTABLISHED DISEASE

In this stage, mental failure is complete. The power of thought and speech is abolished. The extreme degree of dementia is reached and "the patient," as Macphersen aptly says, "actually falls into the condition of a lower order of being, more resembling a vegetable with a digestive tube than an animal."

Vegetable with a digestive tube

Reduced to a skeleton, the exhaustion and emaciation are extreme. Every attempted movement is attended with violent tremor. Locomotion is attended with the greatest difficulty or is utterly impossible. The patient is hopelessly bedridden. The legs are now rigidly flexed over the abdomen, adducted or firmly crossed, while the arms become flexed and drawn over the chest. The pupils no longer respond to light and accommodation. The face is devoid of all expression, portraying the complete mental effacement. Bed sores, if not previously present, now appear,—due to trophic changes,—the healing of which is rendered almost impossible from the continual involuntary passage of feces and urine. Unable to feed himself, the necessitated forced feeding is rendered dangerous, from the patient's difficulty in swallowing without risk of suffocation.

In this helpless state, devoid of nearly every resemblance of a human being, the wretched sufferer lies day after day until released by death.

In addition to the usual form that we have just described, special varieties of paresis are occasionally encountered. One of these is termed the galloping form.

Galloping Form

The galloping form, as its name suggests, is so rapid and violent in its action that, within a few weeks or months, all resistance to the disease is overcome and death results. These cases resemble acute delirium. Berkley reports one case that ran its course in five weeks. Zacher has recorded two cases; one lasting two and a half months, and the other dying in less than four weeks.

Acute delirium

The double form or circular type of paresis also is occasionally met. The cases most frequently present a history of heredity. They exhibit the characteristic symptoms of elation, which, either with or without an interval of calm, are followed by the depressive delusions of melancholia, even with suicidal tendencies and sometimes with ideas of persecution. Following the depressive stage comes a fresh outbreak of violent excitement or of exaltation and expansive delirium, and, this, again, may be succeeded by melancholia.

Heredity

The depressed form is claimed by some authors to be exceedingly common, Kraepelin asserting that it comprises one-fourth of the cases. This is a much higher estimate than could be made of the paretics of this country. This form occurs

Kraepelin

late in life, usually after forty years of age, and is of short duration, rarely lasting more than two years.

This form is characterized by the depressed tone of the emotional attitude and of the delusions throughout the whole course of the disease.

Hypochondriacal delusions

The hypochondriacal self-accusatory and persecutory delusions, ever present, are characterized by their gross, exaggerated, and entirely senseless character. The patients complain that the scalp is rotting away, the skull is filling in with bone causing the brain to shrink, the mouth is filled with sores, the taste is lost, the throat is clogged up so that food passes up into the brain, the stomach is melted away, and the intestines are so paralyzed that there has been an accumulation of excrement within them for many months, and the patient may sit for hours with the hand on the throat to prevent the feces coming into the mouth. The patients may accuse themselves of having committed the unpardonable sin and crimes innumerable, and on this account say that they are doomed to crucifixion.

Adral hallucinations

Hallucinations of hearing are frequent accompaniments of these delusions. Soon there is clouding of consciousness. Friends are confounded with others, and they are unable to recognize their surroundings. Everything that occurs about them has refer-

ence to themselves. These patients are anxious and restless, constantly pace up and down their rooms moaning and groaning, pick at their fingers, pull out their hair, and may mutilate themselves or attempt suicide. This restlessness is, usually, of short duration, and in the intervals the patients are quiet, depressed, seclusive, but evince no emotion. Stuporous states may appear during which the patients are mute, resistive, refuse nourishment, and lie constantly in bed in one position and oblivious of their surroundings and the calls of nature, allowing the feces and urine to pass unheeded. Occasionally they are emotional and lachrymose. This stupor may last for months, with or without the accompaniment of hallucinations and illusions.

SPINAL GENERAL PARESIS

Bevan Lewis

The cases as they relate to the cord have been divided by Bevan Lewis into the three following varieties: "(1) In a majority of the cases, as the only evidence of spinal implication, we find diminished cutaneous sensibility and sluggish knee jerk, alternating, at a later period, with increased knee jerk, usually as the direct sequel to a congestive seizure. Later in the disease, paretic symptoms may preponderate, but the cerebral implication throughout is always the more emphasized. (2) The tabetic group with most

of the symptoms of tabes dorsalis. Yet we usually witness complete subsidence of the special spinal symptoms when the full development of the cerebral symptoms is established; or, what is not infrequent, the anesthesia and ataxy may even be replaced by spastic paraplegia. (3) The group of spastic cases in which symmetrical descending sclerosis of the lateral columns is early apparent and continuous; usually, as the sequel of convulsive seizures and especially frequent in these subjects who have been addicted to alcoholic excess."

DEMENTED FORM

This form is characterized by gradually progressive mental enfeeblement, without prominence of hallucination or delusions or great psychomotor disturbance.

It may be suddenly ushered in by convulsions or gradually develop without apparent cause. The manifestations show a considerable degree of variation. When the onset is gradual the symptoms may resemble neurasthenia. The patients complain of inability to work, inertia, and indefinite pains, with a feeling of pressure in the head. They are slightly forgetful, at times drowsy, and at others slightly confused, but retain a clear insight into their condition. Soon mental deterioration increases, evidenced by their

Neurasthenia

inability to explain their conduct, by errors of judgment, loss of memory, and absence of the usual moral feelings. Work becomes irksome and they may fall asleep over it. Meals are forgotten, mistakes are made in figures, and important matters are overlooked. Good-natured and tractable, they are easily led astray and may drink to excess. Some cases are obstinate and self-willed. Business is neglected and engagements are forgotten. In conversation, thought is sluggish and lacks individuality. Disturbance of apprehension soon appears, the environment is not thoroughly comprehended, account of time is lost, and the patients become confused as to place and mistake persons. The delusions, if any are present, are weak, childish, and easily influenced by suggestion. Sudden emotional changes are, at first, apparent, but later the patients become uniformly dull and apathetic. As long as the physical needs are satisfied, they are perfectly contented. They are friendly to everyone, have a complacent smile when addressed, and greet strangers cordially. At first, slightly cognizant of their condition, they may complain of their mental enfeeblement, but, later, increasing deterioration obscures this feeble capacity. Others express a feeling of well-being and perfect confidence in their business capacity.

The patients become careless in their duties;

engagements are forgotten, letters go unanswered, they go to work at all hours, and finally stay away altogether. They are often restless, wander about, and indulge in excesses or commit petty crimes. The will-power being weak, they are easily led astray, forget when to go to meals, and become untidy in appearance. Some patients are surly, repulsive, reject friendly advances, and without reason oppose anything desired of them.

In spite of their advanced deterioration, they may greet one correctly and appear at ease, when conversing about themselves, but, at the same time, are disoriented and unable to give a coherent account of their lives. The appetite is good, the sleep normal, and the patients present a picture of health. The mental enfeeblement may have been so gradual that friends and relatives may fail to appreciate the real condition.

Percentage

This demented form embraces about forty per cent. of the cases. The duration is short, seventeen per cent. of the cases dying within six months, and few living more than three years.

JUVENAL GENERAL PARESIS

This form has also been termed developmental, premature, early, and precocious paresis. Most of the cases have been reported by English and German authorities, although it has been recognized by French and Russian alienists.

Under twenty years of age

It occurs in cases under twenty years of age. Clouston has reported two cases in girls of fifteen; Norman, one of a girl of thirteen; and Raymond and Dunn have each a case of a girl of nine.

Girls

In almost all cases premonitory symptoms are present, indicating change of disposition, loss of interest in their surroundings, morbid sensitiveness, and other mental changes, revealing marked diminution and weakening of nervous energy. Delusions of grandeur seldom appear and the majority of cases are girls.

REMISSIONS

Diurnal remissions

One of the most interesting facts connected with paresis is the occurrence of remissions. These usually occur in the first or second stage of the disease, and may last from a few weeks to several months. In the prodromal period, it often happens that signs of the disease markedly apparent in the afternoon or evening, may be entirely absent the next morning. At such times no symptoms may be revealed by an examination, with the possible exception of a slight tremor or inequality of the pupils, and even these may be in abeyance. As evening appears the symptoms may be again pronouncedly apparent. Similar in character to these brief diurnal remissions noticed in the prodromal period, may be the pro-

Prolonged remissions

longed remissions observed in the advanced stages of the disease. While during the remission many of the symptoms disappear, the disease is only quiescent, not eradicated, and is certain to reappear, usually in a more active form. During these remissions, although the mental symptoms may not be apparent, there is usually a tremor of the lips and an inequality of the pupils, and the speech is not that of one in health. Remissions have been so complete that there has been an entire disappearance of all the motor symptoms and the mind has seemed clear as in health. These cases have at times been pronounced cures. Concerning these seeming cures, Blandford says: "These cases would be pronounced sane by any jury. They have either lost their delusions or are able to conceal them. I have received letters from such, written without a mistake. But these, who had best recovered, are long since dead, and I know of none whose disease did not reappear in a longer or shorter time."

Blandford

Remissions may occur at any time during the progress of the disease, but the duration shortens as the malady advances. If no other mental symptoms are apparent, there is usually evidenced some moral obliquity, such as purposeless lying, abnormal irritability, or a tendency to extravagance in buying, or a stolid, troubled facial ex-

Moral obliquity

pression. The patient usually increases in stoutness, but becomes more feeble in cold weather. Frequently, he feels well, converses rationally, evidences a returning interest in business, and desires to resume his former occupation. If permitted to resume his business, continued mental effort reveals his weakness, and, if he attempts manual work, the bodily vigor does not return; and in either case he soon breaks down. Hence, if allowed to return home, paretics should be kept quiet, free from care, under the supervision of a physician, and prevented from resuming their former occupations. Under these conditions the remissions may be prolonged, but the disease is sure to return and often its reappearance is marked by an outburst of excitement or violence or by an epileptiform seizure.

Supervision of a physician

DURATION

The duration varies greatly, according to the form of the disease, the sex of the patient, the presence or absence of apoplectiform or epileptiform seizures, and the life and surroundings of the patient. The average duration is, in males, from two to three years; in females, from three to four years; while the great majority of all cases die within five years. Cases have been reported in which the patient has lived ten years and Blandford has recorded one case who lived

Duration

twenty-seven years; but these cases can be regarded as noted exceptions.

PATHOLOGY AND PATHOLOGICAL ANATOMY

Varied and numerous are the macroscopical and microscopical findings recorded by different pathologists, who have, for years, assiduously studied the ravages produced by paresis upon the brain and cord. The following summary, by Peterson, embraces nearly all, if not the entire, changes that have thus far been discovered. We transcribe them as presented in Church and Peterson's work on "Nervous and Mental Diseases," pp. 819 and 820: "It is usual to describe the pathological condition underlying paralytic dementia in general terms as a diffuse meningo-encephalitis. The gross changes observed at autopsy are as follows:

Peterson's summary

"(1) General diminution of the weight of the brain.

"(2) Increased fluid in the subdural space and in the meshes of the arachnoid (external hydrocephalus).

"(3) Pachymeningitis hæmorrhagica interna, with large, fresh or old hæmatomata of the dura mater (in about half of the cases).

"(4) Chronic leptomeningitis (opacity and thickening, with adhesion of the membranes to the cortex).

"(5) Narrowing of the cortex, with gaping of the fissures.

"(6) Distension of the ventricles, with serum and granulated and thickened ependyma (chronic internal hydrocephalis).

"(7) Gray degeneration in the centrum ovale, brain axis, in various columns of the spinal cord, and in some of the spinal roots and peripheral nerves.

"The microscopical findings may be summarized briefly as follows:

"(1) Changes in the vascular walls, dilation of the perivascular spaces, wandering white and red blood corpuscles.

"(2) Increase in the number of the astrocytes.

"(3) In the ganglion cells; loss of the nucleus and nucleolus, cloudy swelling, shrinking of the protoplasmic processes.

"(4) Degeneration and disappearance of the nerve fibers with myeline sheaths, in the white matter and in the cortex, and of the tangential fibers.

"The whole cortex is more or less affected, but often the changes are more marked in one area than in another. It is usual to find the frontal lobes especially implicated."

PROGNOSIS

Uniformly unfavorable

The prognosis of paresis is uniformly unfavorable. A few cases of recovery have been report-

ed. In these cases, it is probable either that there was a mistaken diagnosis or that the patients died during a remission. A fatal termination may be regarded as practically inevitable.

DIAGNOSIS

In a typical case of paresis, there is little danger of making a wrong diagnosis. The cases presenting the most difficulty are those in which melancholia and hypochondria or maniacal excitement predominate and where dementia exists alone without the characteristic excitement. The symptoms most reliable in making a diagnosis of paresis are: affection of speech, pupillary anomalies, muscular tremor and uncertain gait, accompanied by intellectual weakness and delusions of grandeur. When this combination occurs, there need be no difficulty in recognizing the disease.

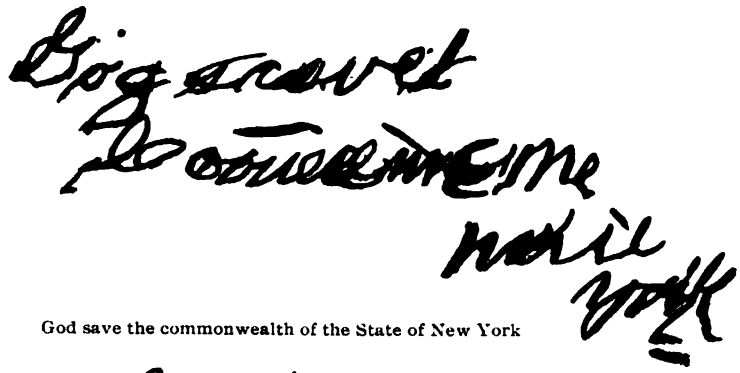
Speech, pupils, tremor, gait, mental weakness, delusions

The disease with which, in its prodromal period, it is most liable to be confounded is neurasthenia. Yet a careful consideration of the two diseases will reveal sufficient marks of difference to prevent any mistakes being made in the diagnosis.

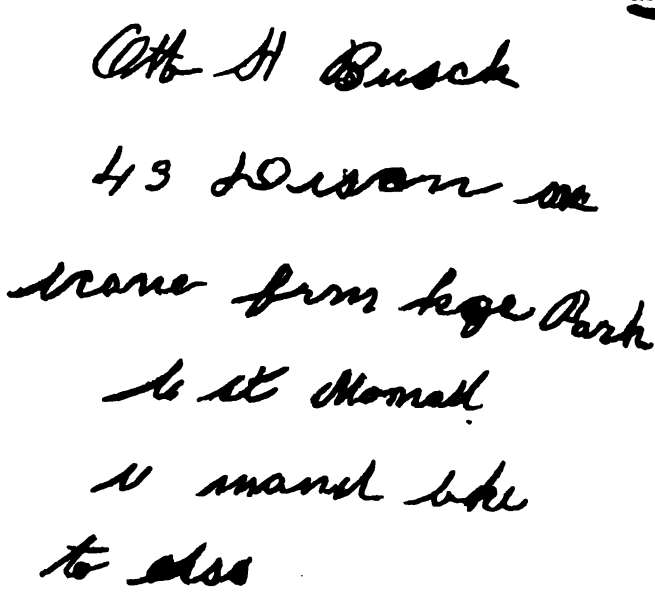
Neurasthenia

The pupils of paresis are sluggish, unequal, pinholes, irregular or immobile; those of neurasthenia are active and large.

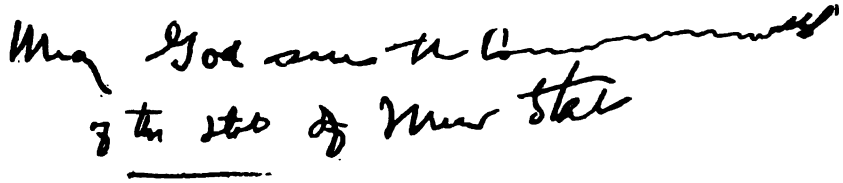
Pupils



God save the commonwealth of the State of New York

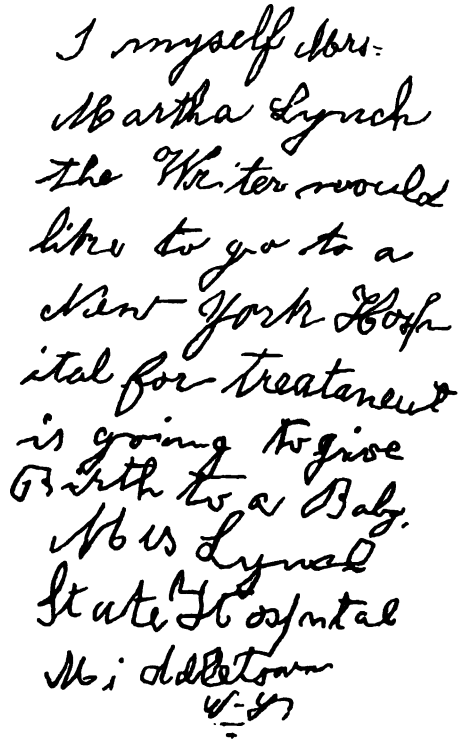


Otto H. Bnsch, 43 Dison St. I came from King's Park this morning, I am going back this afternoon.



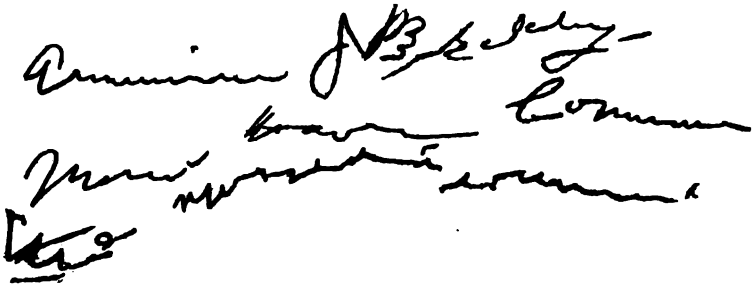
May God save the commonwealth of the State of New York.

SAMPLES OF HAND WRITING FROM DICTATION OF THREE CASES OF DEMENTIA PARALYTICA



I myself Mrs. Martha Lynch the writer would like to go to a New York Hospital for treatment is going to give birth to a Baby. Mrs Lynch State Hospital Middletown N. Y.

Name



Annie J. Brewster, New Haven, Conn. The world is round.

PARETIC WRITING

NO. 1 SHOWING TYPICAL DEFECTS AND INDICATING HER DELUSIONAL TREND. NOS. 2 AND 3 SHOW A CONDITION OF ALMOST COMPLETE AGRAPHIA

Knee-jerks The kneejerks of paresis, diminished, exaggerated, or unequal, are in marked contrast with the active and equal tendon reflexes of neurasthenia.

Face, tremor of tongue The peculiar immobility of the muscles of the face and the tremor of the tongue, so prominent in paresis, are wanting in neurasthenia.

Hand-writing The paretic's handwriting suggests the approach of the disease, while the neurasthenic's remains unchanged.

Speech defects The characteristic speech defects of paresis are never found in neurasthenia.

The feeling of cheerfulness and careless indifference, usually present in the paretic, is in marked contrast with the morbid fears of the neurasthenic. When depression occurs in the paretic it is vague and indefinite in character, while the neurasthenic is tormented by the belief that some particular disease is persistently working his destruction, and paralysis, insanity, and death are his certain doom.

Organic lesions The direct signs of beginning organic brain lesions evidenced by the loss of memory and general weakening of the intellectual faculties, always observed in the paretic, are never found in neurasthenia.

Convulsions The life of the neurasthenic moreover is not imperilled by the epileptic and apoplectic seizures that are a constant menace to the paretic and frequently bring the disease to a close.

Chronic alcoholic insanity may resemble paresis, but the persecutory delusions and general attitude of fear and dread which torture the alcoholic are in marked contrast to the mental exhilaration and contented calmness of the paretic.

Mental attitude

The speech also, though slurred and tremulous like that of the paretic, is thicker in enunciation and lacks the characteristic vocal defects of paresis.

Speech

The tremor of alcoholism is also more universal in its distribution and not first noticed in special groups of muscles.

Tremor

The alcoholic is also improved or completely restored by abstinence, while the course of the paretic is progressive.

Abstinence

SYPHILITIC INSANITY

The disease most liable to be confounded with paresis is syphilitic insanity, and when the syphilitic poison affects the cortex a differential diagnosis may be impossible except by observing the effects of antisyphilitic remedies.

In most cases, however, the difference in the manner of the invasion and in the character of the delusions, the form and nature of the eye paralysis, the lack of the motor symptoms, the characteristic tremor of the tongue and lips, and the marked difference in the speech disturbances will prevent its being confounded with paresis.

Invasion, eye paralysis, motor symptoms, tremor, speech

From the dementias following epilepsy, lead poisoning, tumors, and other gross organic brain lesions, the differentiation may usually be readily made by bearing in mind the characteristic symptoms of these affections. In cases of doubt, the lumbar puncture may decide the question. Numerous experiments by a variety of observers have established the fact, that lymphocytosis is a constant and early symptom of dementia paralytica. De Fursac, quoting **Dupré** says: "An increase in the number of leucocytes, in the cephalorachidian fluid, is an almost constant phenomenon of general paresis, especially at the onset. Though it never appears in the absence of meningeal lesions, its presence eliminates the vesanias, as well as the dementias dependent upon central organic lesions without meningeal involvement, such as senile dementia for instance." Dr. George F. Brewster, of the Middletown State Hospital, in an article in which this subject is discussed, says: "In the normal fluid (cephalorachidian) we usually find from two to three cells in the field. If we find more than from three to eight we consider it quite suspicious. If over eight, in the field, we regard the result as positive."

Lumbar puncture

De Fursac

Brewster

TREATMENT

We are fully convinced that paretics, in any stage of the disease, are much better off in any reputable hospital for the insane than at home. While all medical treatment has, thus far, proved futile as far as complete restoration is concerned, still the systematic routine of hospital life, with removal from all the worries and duties of the outside world, will greatly ameliorate the condition of the patient and prolong his life.

Hospital treatment

In the initial stage, however, you may be unable to convince the friends of the necessity of confinement in a hospital. If compelled to treat such a case at home, you should insist upon the patient's immediate and complete withdrawal from business occupations. All work, mental and physical, should be absolutely forbidden. All sources of worry, anxiety, care, and excitement should be avoided and the rest-cure, partial or complete, should be at once instituted.

The nourishment should be pushed to the fullest extent and such remedies prescribed as the prevailing symptoms may indicate. When the disease is fully established, the patient, invariably, should be removed to a hospital.

CHAPTER XI

ORGANIC DEMENTIA

A large class of cases of mental impairment encountered are the direct result of some organic brain lesion. The type assumed is, usually, a dementia with a progressive weakening of the mental powers, attended by a certain amount of paralysis.

Causes

This organic dementia may result from syphilis or follow apoplectic, embolic, or thrombotic processes, or be produced by a tumor, an abscess, or a disseminated or diffuse sclerosis of the encephalon, or be caused by primary hydrocephalus, meningitis, trauma capitis, or insolation.

SYPHILITIC DEMENTIA

Syphilitic dementia may be divided into two forms, progressive dementia with paralysis, and dementia without paralysis.

Syphilitic poison

Both are the results of the lesions produced by the syphilitic poison in the arteries, meninges, and cells of the brain.

Progressive Dementia with Paralysis

Several types of syphilitic insanity have been described, but progressive dementia with paralysis is the most common and presents a striking clinical picture.

Prodromata

The prodromata are the usual severe, persistent, nocturnal headaches, a feeling of physical inability for any work, then incomplete ptosis or oculo-motor paralysis. The paralysis advances slowly and is never complete. The ptosis is partial, not sufficient to obscure vision, and the paralysis of the recti seldom produces a positive squint. Combinations of paralysis of the oblique and straight muscles may occur and nystagmus is not uncommon. Less frequently there is an involvement of the oblique muscles. With the ocular paralyses anæsthetic patches are frequently found upon the skin of the nose and cheeks and above the eyebrows. Loss of vision, from optic neuritis, also is a frequent accompaniment.

Mental symptoms changeable

Within a few days or weeks, mental symptoms appear. These are changeable and vary in severity from day to day. There is usually, for a few days or weeks, an excessive irritability that gradually increases to maniacal excitement, this being succeeded by depression. By this time marked mental reduction has been reached, evidenced by forgetfulness and neglect of the finer details of life. Transient fanciful or exhaustive delusions may appear, which change from day to day and do not recur.

Sudden paresis

Unless arrested, at this stage the disease presents phenomena of the gravest import.

Upon awaking in the morning the patient may find a paresis of the leg, arm, or face, from which he may slowly recover within a few days. This paresis may be accompanied by a transient motor aphasia. Similar attacks may occur while the patient is awake.

Mixed forms of convulsions, followed by transient paralysis of the extremities, are more frequent than the apoplectic or epileptiform seizures alone. They are usually preceded by symptoms of intense cerebral congestion with a full tense pulse. Convulsions now commence, at first limited to one extremity, then becoming more widely spread and finally universal, if the attack is prolonged. In a short time there is a restoration of the physical health, but, with each successive attack, the mental impairment is increased. Gradually, pronounced dementia is developed, with somnolence, apathy, untidiness, and disregard of the calls of nature.

Convulsions

Death or Dementia

The patient dies after a prolonged series of epileptic attacks or sinks into the lowest grade of dementia, in which he remains until released by some acute pulmonary or intestinal disease.

Vascular system

The pathology of this form of dementia is limited to the vascular system. All forms of inflammations of the arteries are found, which, by obliterating the vessels and diminishing the nutrition of the cells, produce local areas of cerebral soft-

ening. Signs of previous inflammations of the pia are almost always discoverable.

DEMENTIA WITHOUT PARALYSIS

The prodromata of this form of dementia are headache, an unusual irritability, suspiciousness, and loss of self-control.

The sexual desire is occasionally increased, but more frequently entirely lost. Increased irritability soon appears, with a tendency to violence. Mental coordination is lost and a mild dementia is developed. Usually, the muscular power is diminished and anæmic symptoms appear. Paralyses are rare, but epileptiform and apoplectiform attacks are common. Mildly demented, the patient may remain unchanged for years, until removed by death from some intercurrent affection.

POST APOPLECTIC AND EMBOLIC DEMENTIA

Trombosis Embolism

Ninety per cent. of cases of organic dementia result either from thrombotic or embolic processes in the cerebral ganglia and white substance of the hemispheres or from cerebral hemorrhage.

These dementias closely simulate senile dementia, the majority of cases occurring in elderly individuals.

Heredity

That a very important part in organic psychoses is played by hereditary instability of the

brain tissue is demonstrated by the fact that extensive cerebral lesions are often found, post mortem, which have never produced any symptoms of mental derangement in persons hereditarily stable.

Memory

In post apoplectic and embolic dementia the most pronounced symptom is a permanent defect in the memory. These patients are liable to wander from home and are unable to find their way back; they forget names, faces, and dates and have no knowledge of time, all of their thoughts being connected with the long past. Querulousness and lachrymoseness alternate with silly garrulity and depression. Moral obliquity is not uncommon. They steal articles for which they have no use, annoy their households, and are inclined to seek the society of the low and vicious. Occasionally, expansive ideas of wealth, high station, and power are developed.

THROMBOTIC DEMENTIA

Of all the causes of organic dementia, thrombosis ranks first. Thrombotic dementias are the result of advanced arteriosclerotic disease, especially of the ganglia and medullated tissues.

Mental deterioration

The symptoms are numerous and varied. The most important mental manifestations are a progressively failing memory, especially for recent occurrences, lack of judgment, increasing apa-

thy, irritability, drowsiness or sleeplessness. Intense maniacal conditions may prevail, with motor agitation and extreme loquacity, often terminating only with death. A marvelous strength is frequently manifested during these attacks. The incessant activity and sleeplessness, which one would think must speedily exhaust these patients, may continue for weeks, even with the imperfect feeding that alone is possible. Melancholic cases are more frequent than the maniacal and are of longer duration, but the care of the patients is less difficult.

Motor symptoms

With the mental symptoms are usually associated pronounced motor symptoms in the form of tremulous or thickened speech, with flaccid paresis of groups of muscles in one or more extremities; but complete paralysis is rare. Some patients exhibit a general muscular tremor, incapacitating them for active movements, while with others a spastic condition of the limbs is combined with the tremor.

Epileptic seizures not infrequently follow after the exhibition of motor symptoms. One-half of the cases over sixty-eight years of age have senile marasmus and the arcus senilis. The deep reflexes, as a rule, are slightly or markedly exalted and occasionally a difference can be demonstrated between the two sides. Gangrene of the extremities, especially of the feet, is occasionally

encountered, the amputated limbs revealing, without exception, the presence of obliterating disease of the arteries.

Brain Abscess

Organic dementia more rarely results from brain abscess and primary internal hydrocephalus. Post meningitis dementia is another infrequent form.

Paresis

Dementia from disseminated sclerosis presents, in addition to the mental enfeeblement, the scanning speech, intention tremor, and nystagmus, typical of sclerosis. These cases closely resemble the demented form of paresis, but lack the delusions and marked mental disturbance.

Size and location of tumor

In dementia following brain tumors the mental and physical symptoms depend upon the size and location of the tumor and the amount of intracranial pressure.

In certain cases, beside the irritability and mental obtuseness, we find lack of self-control and excitement, which may in rare cases increase to a frenzy, followed, in a few days, by coma and death. In the maniacal form, hallucinations are occasionally found, which have been evolved from the patient's former vocation.

Melancholia as a result of brain tumor is very rare, although the stupor may simulate it.

Traumatism may produce all degrees of injury to the skull and brain, resulting sooner or later in dementia.

In some cases, a slight injury may set up a slow inflammation that may produce, long years after it is forgotten, active incurable mental derangement.

Dementia following insolation has no characteristic peculiarities, but markedly resembles that following arteriosclerosis.

CHAPTER XII

INVOLUTIONAL PSYCHOSES

MELANCHOLIA—SENILE DEMENTIA

A certain amount of mental deterioration is the normal product of advanced age. With advancing years, the memory may become less reliable, the spirits less buoyant, the ambitions fewer, new enterprises less attractive, and the capacity for work lessened, and yet the man may remain perfectly sane. When, however, the natural inheritance is faulty, these normal mental deteriorations are enhanced and pass into positive mental disease. The time when the signs of insanity appear depends largely upon the condition of the arterial system. While one person, with the inheritance of a strong vascular system, may retain his mental powers until he is fourscore and ten, or even longer, another, less fortunate in this regard, may at forty-eight or fifty years show signs of senile degeneration. The stage of involution may be divided into two periods, the presenile and the senile; the former embracing the time of life between the fiftieth and sixtieth year, the latter that after the sixtieth year. As a product of the first period, we find melancholia; as a result of the senile period, senile dementia.

Arterial system

MELANCHOLIA

Melancholia his been limited by Kraepelin, to the depressed conditions that arise during the period of involution, "embracing all the morbidly anxious states not included in other forms of insanity." (Kraepelin.) Its characteristics and continuous depression with fear, self-accusatory, persecutory, and hypochondriacal delusions, and slight clouding of consciousness, terminating usually, after a protracted course, in moderate mental deterioration.

Kraepelin

ETIOLOGY

Essentially a disease of the presenile period, melancholia usually appears between the fiftieth and sixtieth years, rarely before forty or after sixty. Women are its most frequent victims, in the proportion, according to Kraepelin, of sixty to forty; and of two to one, according to Paton. While only about one-half of the cases can be traced to direct heredity, a tainted family history is usually found, evidenced by the occurrence of apoplexy, senile dementia, or alcoholism in other members of the family. Mental shocks or physical illness are among the most frequent exciting causes.

Tainted family history

FEMALE INVOLUTIONAL MELANCHOLIC

PATHOLOGICAL ANATOMY

The chief pathological findings have been sclerosis of the cerebral arteries, beginning atrophy of the brain, changes in the nerve cells in the deeper layers of the cortex, and extensive fibril production of the neuroglia.

SYMPTOMATOLOGY

The prodromal period is usually long and indicative of a progressive change in the entire organism. The patient may for months complain of numerous illy-defined symptoms. Cephalalgia, sleeplessness, disorders of digestion, weakness, palpitation of the heart, noises in the ears, lack of mental concentration, and inability for mental or physical work. At first, there is only a slight accentuation of the mental changes common to old age, but, after some one of various exciting causes has intervened, the patient manifests a tendency to become more and more egocentric. Sad, dejected, apprehensive, he finds no enjoyment in home and family. Filled with doubts and fears, he loses all pleasure and interest in his ordinary occupations. Overpowered by a subjective feeling of insufficiency, he dreads to commence any new enterprise, from a fear of failure. Easily confused and forgetful, all mental work becomes a burden and he finds it difficult

Self-insufficiency

to do anything. This feeling of self-insufficiency, one of the most characteristic symptoms of the disease, varies in intensity from one of mere dejection to a feeling of anguish. As the disease progresses, the mental inertness becomes more and more pronounced, and connected thought and volitional movement more and more difficult. During this period remissions may occur, when for a few hours the apprehension and depression disappear.

Childhood faults

Delusions of self-accusation now appear. Some patients merely accuse themselves of general wrong-doing. Usually the accusations are referred to some trivial acts in their past lives, long since forgotten. Some childhood folly or youthful indiscretion is recalled and continually mourned over as the cause of their present sorrow. Their whole past life has been a mistake and a failure. Everything about them is a source of anxiety. All the troubles of those by whom they are surrounded have been caused by their own misdeeds. Frequently the self-accusations refer to their religious life. They assert that they were never truly converted, that their past religious professions were a mere sham, that they have been mere hypocrites who have sinned against the Holy Ghost and are possessed of the devil.

Religious life

Associated with the self-accusatory, may ap-

pear depressive delusions. These patients assert that they and their families are to be killed, that God has condemned them, that they are to be driven from home, prosecuted in court, and sentenced to death. They may refuse to eat, claiming that they are not fit to live and that they ought to be starved for their crimes. They may plead guilty of crimes of which they are entirely innocent, in the hope of receiving punishment and thus relieving their consciences. Hypochondriacal delusions also are frequent. These patients claim that syphilis, cancer, or tuberculosis is destroying their brains, stomach, and lungs; that they have been poisoned and can no longer digest any food; that they have infected their families, who also will surely die. Borne down by these depressive fears, these patients may eat little or not at all and decline to purchase the necessaries of life for themselves or their families, claiming that it is useless since they are so soon to die.

Depressive delusions

Indefinite transitory hallucinations of sight and hearing may accompany this condition. Voices may continually urge the patients to suicide, or torture them by repeatedly reminding them of their crimes. Consciousness is usually clear; and there is no disorientation except with reference to their delusions, which cause them to mistake strangers for relatives and insist that

Disorientation

they are confined in prison. Still, it is apparent that their apprehension is slightly disordered.

Thought is coherent and relevant, but centered upon their delusions, to which their conversation is limited. Many continually repeat certain phrases, such as "I want to go home," "Where are my children?" There is usually some recognition of their condition and they will complain that their minds are not right, although unable to recognize many symptoms of their disease.

Fanciful delusions

Certain cases develop fanciful and senseless depressive and persecutory delusions. Everything appears changed, friends and relatives are unrecognized. Nothing seems natural; they are confined in prison or in a house of ill fame, the world has come to an end, they are to be executed for their horrible misdeeds, their food is mixed with the blood of their children. The most exaggerated crimes against mankind are confessed. They have killed their parents and their children and blasphemed the Holy Ghost, and are to be pierced with hot irons and boiled in oil; but no punishment is commensurate with their guilt.

Nihilistic delusions

Other cases reveal nihilistic delusions. These patients assert that they alone exist. Their friends and all mankind have been destroyed. There is no longer any sun, moon, or earth. They themselves cannot eat or breathe, speak or walk. Their bowels are paralyzed and they are

filled with decomposing food; they cannot live and they cannot die.

Filled with absurd hypochondriacal ideas, they assert that their brains have become petrified, their lungs solidified, their heart has stopped, and they have become changed into animals. Others, possessed by sexual delusions, assert that strange men violate them at night and that they are confined in a house of ill fame. Occasionally, expansive delusions are present. *Hypochondriacal*

Hallucinations of sight and hearing are common. Hallucinations of smell and taste may appear, but are less frequent.

Clouding of consciousness and disorientation for time, place, and persons is usually apparent. Although thought is confused and monotonous, these patients may answer questions and give a clear description of their symptoms. Some have an indistinct idea of their mental state and claim that it has been caused by poison or hypnotism. The emotional state is usually that of depression, characterized by great anxiety and apprehensiveness. This is much less apparent when the patients are surrounded by strangers and in an unaccustomed environment than when they are at home, with friends and relatives. The face reflects the dominant emotion. The forehead is creased with horizontal wrinkles, except between the eyes, where there are often several short per- *Wrinkles*

INVOLUTIONAL MELANCHOLIA CHARACTERISTIC FACIAL EXPRESSION

pendicular furrows. The expression varies with the intensity of the depression.

Conduct varies with the severity of the disease. Although work is difficult and distasteful, they may work incessantly, exhausting their strength in their endeavors to forget their misery. They cannot remain quiet. Some merely wander about aimlessly, others in their agony continually pace up and down, moaning, groaning, praying, and beseeching relief, bite their fingers, pull out their hair, tear their clothing, and often severely mutilate themselves. Among strangers and in an institution they ordinarily control themselves much more perfectly than when at home. Commands are promptly obeyed. *Conduct*

Food is taken reluctantly, either from a desire to die or on account of their unworthiness or from a fear of poison. Some patients refuse medicines and baths, others are filthy.

All these patients are more or less suicidal and require constant watching. Some are exceedingly desperate and will adopt any measure to accomplish their design. Hanging, drowning, strangulation, may be tried or, failing by these means, they may jam their heads against the wall, swallow glass, or any other substance which they may chance to find. *Suicidal*

PHYSICAL SYMPTOMS

One of the earliest and most prominent of the physical symptoms is insomnia. The sleep is lessened and what is obtained is disturbed and unrestful. Anorexia, coated tongue, foul breath, constipation, and digestive disorders are usually observed. The circulation is disturbed, the pulse small and irregular or slow, the limbs are cold and cyanotic, and signs of sclerosis of the arteries may be apparent. Dermography is usually easily obtained. Cardiac lesions are not infrequent and complaints of numerous distressing heart symptoms are common. The temperature is not infrequently lowered. Numerous senile changes may be noticed, tremulousness of the tongue and hands, paresis of various muscles, sluggish pupils, physical weakness, and a dry and harsh skin The weight is invariably decreased, its increase usually being the first sign of improvement.

Circulation

Senile changes

COURSE AND PROGRESS

The course of the disease is usually chronic, the duration varying from one to two years. Throughout the course of the disease, a variation in the severity of the symptoms is common. Daily evening remissions and morning exacerbations may appear or exacerbations may be produced by annoyances, exhaustion, or excitement.

Chronic

Delusions

When nutrition improves and the weight increases and the sleep becomes more prolonged and restful, the mental symptoms begin gradually to disappear. The delusions lose their power and the patients, by degrees, come to the belief that their fixed ideas and their depression are the result of physical disorders. The remissions become longer and more marked and the depression is superseded by irritability and motor restlessness; the patients then begin to interest themselves in the daily affairs of life. Short relapses may, however, occur, even after convalescence is well established, when some of the old symptoms will be manifested.

Remissions

DIAGNOSIS

The diagnosis of melancholia is not always easy. The diseases with which it is most liable to be confounded are the depressed type of manic depressive insanity, dementia præcox, and the depressed form of dementia paralytica.

The slower development of the disease, the greater degree of restlessness, psychomotor retardation, uniform despondency, long duration, gradual improvement, and the ability to express themselves orally or in writing, will usually distinguish the melancholic from the sufferers with manic depressive insanity.

Manic depression

The dementia præcox case is distinguished by

Dementia Præcox

his emotional indifference, negativism, obsessions, inaccessibility, impulsive acts, and stereotypy.

Dementia Paralytica

The depressed form of dementia paralytica shows much more mental deterioration, defective memory, silly and contradictory delusions, as well as the characteristic physical symptoms.

PROGNOSIS

Kraepelin

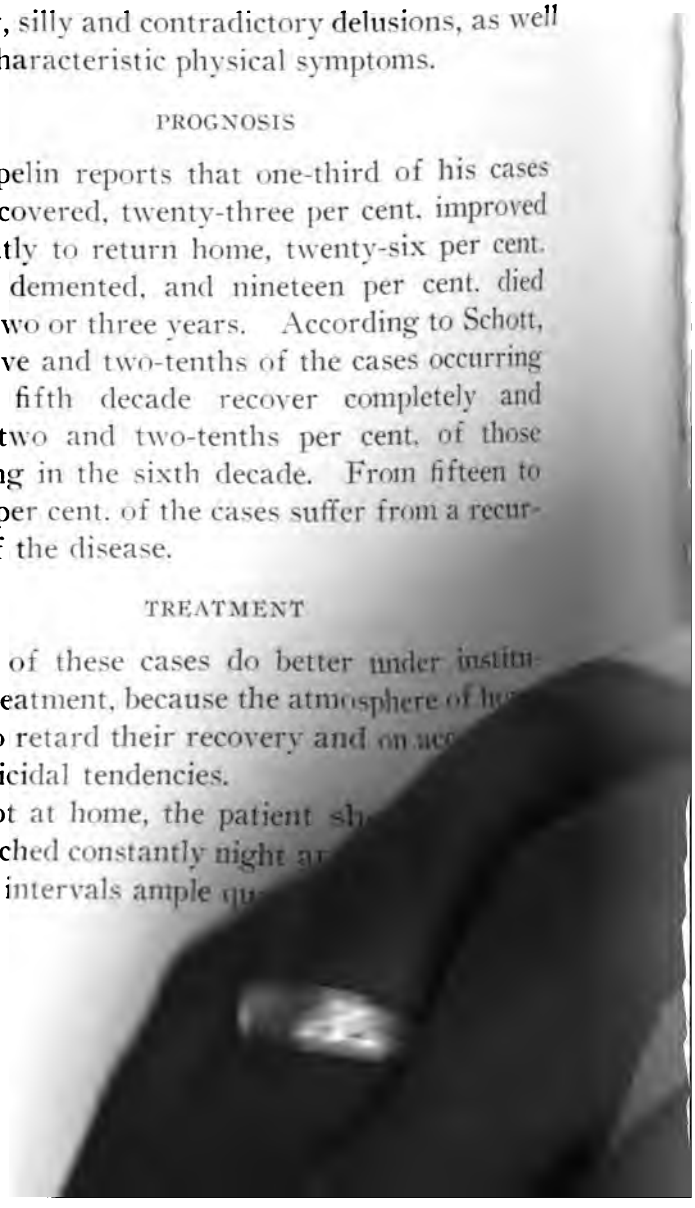
Kraepelin reports that one-third of his cases fully recovered, twenty-three per cent. improved sufficiently to return home, twenty-six per cent. became demented, and nineteen per cent. died within two or three years. According to Schott, thirty-five and two-tenths of the cases occurring in the fifth decade recover completely and twenty-two and two-tenths per cent. of those occurring in the sixth decade. From fifteen to twenty per cent. of the cases suffer from a recurrence of the disease.

Schott

TREATMENT

Most of these cases do better under institutional treatment, because the atmosphere of h seems to retard their recovery and on ac their suicidal tendencies.

If kept at home, the patient sh bed, watched constantly night a at short intervals ample qu



easily digested food. In the worst cases, forced feeding by the nasal tube may be required. As far as possible the tastes of the patient should be consulted in the selection of the diet, due care being taken that the food selected is of a highly nutritious character. When the physical powers are sufficiently improved, the patient should be taken out of bed, kept in the open air as much as possible, and have the mind diverted by walks, drives, and varied amusements.

Nasal tube

The remedies needed are the same as those previously mentioned for depressed states, under manic depressive insanity, selected according to the particular symptoms of each individual case.

SENILE DEMENTIA

Senile dementia has been defined as "a peculiar state of intellectual enfeeblement with or without delusions, resulting from cerebral lesions determined by senility." (De Fursac.)

De Fursac

A certain amount of weakening and diminution of the mental powers is a natural accompaniment of old age and cannot be regarded as pathological. Simple diminution of the mental powers, with increased conservatism, lethargy, and habits of economy natural to senility, do not constitute a true insanity.

Senile dementia is something more and should be carefully differentiated from simple old age.

Differentiation from old age

In senile dementia, the lethargy of old age becomes fatuity, conservatism becomes suspicion, and parsimony evokes delusions of attacks on property. Forgetfulness and a diminution of mental vigor are a natural consequence of old age, but the weaknesses are recognized. Names and dates are forgotten, but attempts are made to recall them. The dement is entirely oblivious of his loss of memory and increasing mental enfeeblement. The dement misapplies names and mistakes faces, and serenely thinks he is right. The dement brooks no correction and allows no interference. Senile dementia is the natural decadence of old age plus the pathological changes essential to the production of insanity. Among the first manifestations of senile dementia is a loss of memory. The occurrences of the day may be entirely forgotten, while those of years long past remain bright and clear. The events of youth are lived over, as if they had been recently enacted. The same story may be unconsciously repeated several times in an hour. After a time, the patient becomes unable to recognize his surroundings or the people with whom he is continually associated. He loses himself on familiar streets, his own house and apartments appear strange to him and he confounds the property of others with his own. Failing to recognize his apartments, he becomes exceedingly irri-

Memory

tated by the refusal of his frequent demands to be taken home. With the advance of the disease, even old memories vanish and the senile dement may not only forget the faces of wife and children but all knowledge of their existence may be blotted out.

Prejudices

Unfounded prejudices are easily formed and wealthy senile dements are often made the subjects of scheming unprincipled persons to the detriment of their own families and dearest friends.

Egotism

Throughout the evolution of a senile dementia there is manifested an increased egotism. The individual's own personality is always uppermost. His eating, drinking, difficulties of digestion, the daily alternations in his corporeal perceptions are always uppermost in his mind and the perpetual brooding over trivialities induces mild melancholic or hypochondriacal states. Only the things that concern himself are considered. Wife and children may die, but, so long as he is himself physically comfortable, he cares not; let some of his creature comforts, however, be refused or forgotten, and he is immediately excited and aroused to angry recrimination. Dictatorial, egotistical, cruel, the senile dement is utterly regardless of the feelings or rights of his neighbor.

Moral deterioration

With the advance of the disease, a profound moral deterioration and degeneracy of the eth-

ical feelings is manifested. Patients, formerly refined and cultivated, become coarse and vulgar in speech, negligent in dress, filthy and intemperate in their habits, cruel and insulting in their treatment of their children and servants. Frequently the sexual desire is increased, although complete impotency may exist. This desire may manifest itself simply in lewd speech and obscene letter-writing, or in absurd and ridiculous proposals of marriage. Less frequently a senile satyriasis may develop, causing indecent exposure of the genitalia in public places or attempts at rape upon little girls or even infants. With women, sexual delusions may arise of being nightly ravished or carried to houses of prostitution, or they may imagine that they are followed upon the streets by men desirous of assaulting them.

Senile satyriasis

Terrifying illusions and hallucinations may manifest themselves. Definite hallucinations are, however, somewhat rare and are usually of an elementary order. The frequent advancing deafness, preventing a proper appreciation of the impressions received from external agencies, may give rise to aural hallucinations. The ringing of bells, the rustling of the wind, or the whistle of locomotives may be converted into the imperfect conception of voices. Less frequently, hallucinations of sight occur.

The underlying mood is often melancholic and rarely, through the influence of depressive delusions or because of their recognition of their mental deterioration, senile dements have committed suicide.

Suicide

The chief and most common delusions of senile dements relate to their property. Convinced of his absolute penury, the millionaire may deprive himself of the simplest necessities of life and starve in the midst of his millions, and, though residing in a palace, grovel in filth and squalor. Continually suspicious of being defrauded or robbed, these dements accuse all about them of sinister and malign intentions. The agents and stewards in charge of their property are discharged and others employed, who soon receive the same treatment, until, as Spitzka says, "they find the one who possesses the undesirable qualifications necessary to the management of a senile dement: for experience teaches that intrigants and time-servers have had more success, in this direction, than straightforward and independent business men or the honest friends of the patient." Impelled by their anxiety for the security of their possessions, they are prone to wander continuously about the house at night, looking for thieves, and are continually engaged in devising new bolts and fastenings for doors and windows

Property

Spitzka

and new hiding-places for their possessions. Under the influence of such delusions they may imagine that they are being poisoned, murdered, robbed, or cut to pieces.

Restlessness at night

A striking feature of many of these dements is a great restlessness, which comes on especially at night, causing them to wander about the house, try to get out of doors, and escape from an indefinite something or somebody.

Foremost among the bodily symptoms may be noticed a general senile decreptitude and a senile tremor of the hands. Hemiparesis, monoplegias, and hemiplegias also appear, as the result of focal brain lesions. Complaints are often made of severe pains all over the body, of vertigo, ringing in the ears, and sparks before the eyes. Marked anesthesias also, in various areas or over the whole body, are frequently noticed.

Senile tremor

Duration

The duration of senile dementia is very variable. It may go on for years, but in rare instances terminates, by death, in a few months. If not cut short by some other intercurrent illness, bed sores and colliquative diarrhœa are liable to close the history.

PATHOLOGICAL ANATOMY

In advanced cases of senile dementia there is found, in the brain, atheroma of the arteries, thickening of the membranes, a diminution of the

weight of the brain, thinning of the cortex, and a decrease in the number of the nerve cells. The cranium is thickened and the dura usually adherent to the calvarium. The cerebro-spinal fluid is increased. The ventricles are distended with serum. Foci of softening and hemorrhage also are frequently present.

TREATMENT

Most cases can be treated at home, but should be under the care of a nurse. The treatment should be chiefly hygienic, especial attention being given to cleanliness and the administration of liberal quantities of nourishing food and to giving as much exercise in the open air as the physical condition will allow.

CHAPTER XIII

MANIC-DEPRESSIVE INSANITY

TYPES: MANIC, DEPRESSED, MIXED

Manic-depressive insanity is manifested in attacks that occur throughout the life of the individual without producing mental deterioration, and is characterized by a tendency to recover and a tendency toward recurrence.

ETIOLOGY

Manic-depressive insanity is one of the most common forms of mental disease, embracing from twelve to twenty per cent. of all admissions to insane hospitals. Its chief cause lies in an inherited predisposition that renders the individual incapable of bearing the strains of daily life. To inheritance, from sixty to eighty per cent. of all cases may be ascribed. In some, the disease is a direct inheritance from some ancestor. In many, a constitutional tendency has been shown through life, evidenced by undue excitability, lack of self-control, and causeless changes of mood. Some are abnormally bright, others are shy and reserved, and occasionally imbecility is apparent from birth. Physical stigmata are frequently in

Inheritance

evidence. Handicapped by constitutional weakness, any unusual strain may act as an exciting cause. Overstudy, overanxiety, shocks, loss of sleep, trauma, insolation, any acute disease, like typhoid fever, pneumonia, rheumatism, or scarlet fever, or an excessive loss of blood may, in one previously predisposed, precipitate an attack. *Strain*

Women are especially susceptible and comprise about two-thirds of its victims. In women, the first attack may appear coincident with the first menstruation. In many, the disease may begin with the first childbirth and recur with each succeeding parturition, although the climacterium may not cause a cessation of the attacks. *Women*

The time of life most amenable to its assaults is between the twelfth and twenty-fifth years, although attacks have occurred as early as ten years and as late as seventy years.

SYMPTOMATOLOGY

Its symptoms may be arranged into three groups:

Manic.
Depressed.
Mixed.

MANIC TYPE

The manic type may be divided into hypomania, mania, and delirious mania.

DEPRESSED TYPE OF MANIC-DEPRESSIVE INSANITY

Mildest

Hypomania is the mildest form of mania. It has also been designated "mania mitis" or "mitissima," and "folie raissonnante."

Physical symptoms

The onset of the disease is slow. For a few days or perhaps a month, signs of approaching trouble are apparent. The appetite fails, the tongue is coated, the bowels are constipated, weight is lost, and the skin looks dirty. A dull headache with sleeplessness and a general mental inertia, unfitting the patient for mental work, renders him depressed or hypochondriacal. After this stage, the bodily ailments are lessened and a change in the physical appearance, bearing, and actions takes place. The face becomes flushed, the eyes are bright, and the expression of gloom and inertia is changed to one of joy and animation. Previously disregardful of his personal appearance, the patient now dresses himself in a gaudy and ridiculous manner. Formerly self-abnegating and retiring, he now becomes self-assertive and anxious to attract attention. Previously pessimistic, he is now imperturbably optimistic. Impervious to care, he is now joyous and happy. Former worries and anxieties are forgotten and he is transported to another realm, one of joy and sunshine. Inquiries as to his health elicit the universal reply that he "never felt so well before in his life." Filled with overweening egotism, he

Appearance

Mental attitude

UofM

proclaims his ability to accomplish great undertakings. Conscious of his own great superiority, he brooks no interference with his actions or undertakings. The slightest contradiction or attempt at restraint provokes a violent outburst of anger. Exceedingly loquacious and confidential, he may confide his most private affairs to utter strangers. Although the lucidity, orientation, and memory may remain intact, the judgment and attention are greatly impaired, and conversation and letters are likely to show an entire lack in the association of ideas.

Emotional state

The mental attitude is that of elation, the patients are usually cheerful, happy, and exuberant. Some are humorous and given to facetious remarks. While jovial and friendly, they are markedly selfish as far as their own desires and wishes are concerned. Others are discontented, intolerant, quarrelsome, and rude. All are impulsive in their actions and liable to sudden outbursts of anger upon the slightest provocation. Devoid of moral sense, many lie, cheat, and steal without the least scruple. Formerly virtuous and abstemious, they may become openly licentious and drunken. Incapable of appreciating the character of their conduct, the most deplorable acts are regarded with complacency. Impelled by an increased psychomotor activity, the most striking symptom

Conduct

is their continual restlessness. From morning until late at night, impervious to fatigue, they are doing something. Long walks or journeys are undertaken. New business ventures may be taken up and foolish speculations entered into, often resulting in the loss of a lifetime's accumulation. Always busy, without persistent perseverance in any one undertaking, they accomplish nothing.

PHYSICAL SYMPTOMS

Appetite Sleep

The sleep obtained, although lessened in the number of hours by their pressure of activity, is profound. The appetite is good, the weight is retained or increased, and there is no loss of physical strength.

Improvement is gradual and subject to remissions. The duration is from a few days to several months.

MANIA

Onset sudden

The onset of mania is usually sudden, following a short period of depression, attended by slight headache or a general feeling of malaise and discomfort. The characteristic symptoms are rapidly developed. The previous depression and lassitude change suddenly to exaltation and great psychomotor restlessness and activity. Consciousness is somewhat disturbed and partial, or complete, disorientation is apparent.

Friends and acquaintances are unrecognized and may be addressed as prominent historical persons or public officials. Lacking in apprehension, the patients are easily distracted by anything which occurs about them. Incapable of sustaining a long connected conversation, they may answer correctly short questions as to their previous and present condition. Although usually exuberant and happy, they are easily irritated and subject to violent outbursts of temper. Any restraining word or contradiction will call forth upon the offender torrents of abuse, often ending in a personal assault. Exceedingly emotional, they shout with joy one moment, the next burst into floods of tears and bitterly complain of the abuses to which they are subjected.

Irritable

Emotional

Overflowing with psychomotor activity, they are never quiet. They sing, dance, shout, gesticulate, tear their clothing and smear themselves and their apartments or adorn themselves with the most incongruous decorations. In their eating they are especially revolting, mixing up their food and bolting it in the most disgusting manner.

Hyperactivity

Exceedingly destructive, nothing is safe within their reach. They destroy furniture, clothing, glass, bedding, anything with which they come in contact. They may be playful and mischievous or quarrelsome and violent. Impelled by their

Destructive

Sexual excitement

sexual excitement, many masturbate, shamelessly expose themselves, or make constant demands for intercourse. The mental exaltation and exuberance of spirits may at first be but an exaggeration of natural characteristics, but it is soon superseded by a mental turmoil. Some are dazed and confused and completely disoriented. The speech may be incoherent and replete with hallucinations and delusions. The mind may be occupied by a single delusion or a multitude of delusions may pass through the brain. The delusions are usually expansive and changeable.

Hallucinations

The hallucinations are varied and transitory. Faces peer at them, beautiful panoramas are spread out before them or frightful animals jump at them, the sweetest music fills their ears or angry voices threaten them. According to the nature of their mental visions the patients are pleasant, cheerful and tractable or fierce, savage and dangerous. The majority of patients, right in the midst of the most vivid hallucinations, can return momentarily to reason and talk coherently. Although a derangement of the correlation of ideas and considerable mental obscuration is apparent amid all the logorrhea, yet the judgment may be unperverted. Almost all are noisy and their apartments, night and day, resound with their shouts of joy and peals of laughter, or with

Conduct

groans, curses and imprecations. Guided en-

tirely by their delusions, these patients are utterly untrustworthy and need to be constantly watched to prevent their doing damage to their surroundings, attendants or themselves. They are not usually suicidal, from a desire to destroy themselves, but under the influence of their delusions may jump out of windows or into the water or fire, imagining that they are impervious to harm or that they are pursued by enemies.

Many of these are exceedingly destructive, tear off all their clothing and, utterly shameless, go about entirely nude, break windows or furniture and if opposed become exceedingly violent, biting, striking or kicking anyone within reach.

Physical symptoms

Disturbance of the circulation is evidenced by the flushed face, hot head, congested eyes with dilated pupils and general heat of the body. The pulse is strong and full, but may not be greatly accelerated, and the temperature is usually not much elevated. The tongue is coated, breath offensive, but the patients, unless prevented by the delusion of being poisoned, may eat ravenously, often bolting the food in large masses; but, in spite of the enormous quantities of food taken, there is a steady loss of weight. The bowels are usually constipated, the urine highly colored and often scanty or suppressed. All of these patients, unless prevented by appropriate treatment, are sleepless, and night after night, unceasingly

engaged by their schemes, will go without a moment's or, at the most, with only one or two hours' sleep. Exceedingly noisy in many cases, they not only sleep little or none themselves, but prevent everyone else from sleeping who is within range of their voices.

Menstruation

In women the menstrual functions are liable to be disturbed, and when normal their occurrence is usually accompanied by marked exacerbation of the mental symptoms. The menstrual discharge is, in many, often exceedingly profuse and extremely offensive.

After a variable length of time the intense excitement decreases and the intervals of quiet become longer and longer. Sleep returns. The hallucinations and delusions, lessened in intensity and paling before returning reason, are at last recognized as mere deceptions and the individual passes on to a more or less complete recovery. However perfect the recovery, the patient if subjected to any severe mental strain is liable to a recurrence of the disease. The duration varies from a few days to two or three years. The usual duration is several months.

DELIRIOUS MANIA

This form is the most intense of the maniacal states. It is characterized by clouding of consciousness, incoherency of speech, marked psy-

chomotor activity and numerous hallucinations and vague delusions.

Hallucinations

Of rare occurrence, the disease after a short period of indisposition, characterized by sleeplessness and restlessness, suddenly bursts forth in fully developed form. Filled with hallucinations of every form and description, reason is completely dethroned. The most charming scenes and entrancing sounds alternate with sights of torture and shrieks of anguish. One moment transported to heaven, the next they are plunged into the depths of hell. Vague dreamlike, depressive or expansive delusions soon appear. Overwhelmed by this continuously changing host of mental phantoms, a state of deep confusion ensues. Entirely disoriented, their surroundings appear strange and friends and familiar faces are unrecognized. Profoundly incoherent, they constantly pour forth an endless torrent of senseless words or a constant repetition of single phrases and sentences. Running the whole gamut of the emotions, ecstatic joy, dire distress, courage, shrinking timidity and apathetic indifference may be successively displayed in their actions and by their varied facial expressions. In the psychomotor field the acme of maniacal excitement appears. The patients rush about their apartments, gesticulate, tear off their clothing, pound upon the doors or windows,

Confusion

Psychomotor activity

shout, sing, swear, pray or smear themselves and their apartments. If confined, they continually listen to and answer their imaginary voices.

Entirely engrossed by their mental activity, little food is taken and as a result the weight decreases. Occasionally muscular tremor is present. Sleep is greatly disturbed and at the worst stage of the disease is entirely absent. Disturbance of the circulation is evidenced in the accelerated pulse, flushed face, injected conjunctivæ and hot head.

Course rapid

The course of the disease is usually rapid, an abatement of the symptoms appearing in three or four weeks. During the height of the excitement short intervals of composure, lasting from a few minutes to a few hours, may occur, but the consciousness is always clouded. Improvement may suddenly take place, but it is usually gradual. After the cessation of the excitement vague remnants of hallucinations and delusions for a time may be apparent, but these soon disappear. There is usually no remembrance of the occurrences of the acute stage. A fatal termination may ensue, as the result of exhaustion, injuries, fat embolism of the lungs or from some intercurrent disease.

Exhaustion

Following the attack signs of depression and mental and physical exhaustion may appear, unfitting the patient for any work. These, how-

ever, usually disappear when the normal weight and strength is regained. In some of the severest cases a certain amount of mental enfeeblement remains evidenced in impaired judgment, insight and abnormal emotional irritability and restlessness.

Duration

The duration of maniacal attacks, whatever the form, cannot be predicted with certainty. Some last but a few days, others continue for years. Death seldom occurs except as the result of injury or some intercurrent disease.

TREATMENT

The majority of cases of maniacal excitement will be better cared for in some institution for the insane, and as soon as the disease is established should be committed. If the patient, however, has ample means, he can be cared for at home, however severe the attack. If he is to remain at home, ample preparations must be made for his treatment. A large well-ventilated room, as far as possible from the other members of the family, should be selected. The windows should be fastened and guarded, the doors provided with good locks and all bric-a-brac and unnecessary furniture should be removed. One and, if necessary, two experienced nurses should be secured and given entire charge of the patient.

In the treatment of mania the physician should

constantly bear in mind that he is dealing with a very sick patient. Whatever evidence of bodily strength may be displayed, it must be remembered that this strength is spurious, and that the disease is rapidly exhausting the victim's mental and physical vitality. The patient should, therefore, be immediately put to bed and kept there by mechanical restraint, if necessary, until convalescence is fully established. Abundant liquid nourishment, in the form of soups, beef tea and milk, must be administered at regular intervals. A sponge bath with alcohol and water, night and morning, will greatly add to the patient's comfort and help to soothe the nervous condition. In cases of great excitement a prolonged hot bath will often prove highly beneficial in producing quiet and sleep. Great care should be taken that in his violent struggles he does not become bruised or injured. Where mechanical restraint becomes necessary constant watchfulness must be observed that the circulation be not disturbed and that no abrasions of the skin occur. While constant watch must be kept night and day, it is desirable that no more persons should be about the patient than are absolutely necessary for his care; perfect quiet of body and mind being as far as possible afforded the sufferer. In the medication select the remedy which, from its mental and general symptoms, is the closest sim-

Physicial exhaustion

Hot baths

Constant watchfulness

DEPRESSED TYPE OF MANIC-DEPRESSIVE INSANITY HYPOCHONDRIACAL

ilar to the case in hand and stick to it and the result will surely reward you. If the patient does not sleep as much as you would like at first, do not get discouraged, as one hour of natural sleep is better than many forced by narcotics. Sleeplessness is but one symptom, and as the disease yields to treatment, sleep will come naturally and with it mental rest and healing. Numerous harmless adjuvants, in the form of warm baths, hot milk or hot malted milk, may aid the selected remedy when persistent sleeplessness prevails. General massage in some cases is also effectual.

The following list of remedies are those which we have found most helpful in these cases: Acon., Agaricus, Anac., Apis, Ars. Alb., Bell., Camphor, Cantharides, Cham., Calc. Carb., Cim., Hyos., Lach., Nux Vom., Phos., Plat., Stram., Tarantula Hispania, Veratrum Album, Veratrum Viride.

ACONITUM

Onset of attack

This is frequently useful at the onset of mania when characterized by marked inflammatory action shown by full rapid pulse, high temperature, general heat of skin, great restlessness and intense thirst.

Fears

The patients evince great fear and anxiety of mind, with great nervous excitability. They are tortured by every variety of fear and their timid-

ity is stamped upon every lineament of the countenance. They are afraid to go out, to cross the street, or go where there is any excitement. They have a constant horror of approaching death, darkness and ghosts. Thought is confused, the memory weak and mental labor is an impossibility. They are restless in body and restless in mind. There is no stability of thought, one moment they are sad, the next gay. They are exceedingly erethistic, oversensitive to light, noise and music, intolerant of pain and cannot bear to be touched or uncovered.

Restlessness

The prevailing characteristic of the maniacal aconite patient is fear.

While aconite is often beneficial in the beginning of the disease, it usually has to be followed by some other remedy before the cure is completed.

AGARICUS

Furious, fearless, menacing frenzy, which causes the patient to assail and injure himself and others.

Great Excitement

Incoherent talking, passing rapidly from one subject to another. Great excitement, evinced by leaping, dancing, singing with great loquacity and exaggeration of the senses. Full of delusions of power and personal importance. Hallucinations of sight and hearing. Excitement

followed by sleep, with great prostration upon awakening. Constant muscular twitching. Tremulousness of the whole body. This tremor is more internal than external and may greatly terrify the patient. *Tremor*

Especially useful in cases complicated by chorea and when indicated is exceedingly effectual. *Chorea*

ANACARDIUM

Fixed ideas that he is double, that there is no reality in anything, that the body and mind are separated, that a stranger is by his side. All appears like a dream. Imagines that her husband and child are not hers, fondles, then pushes them away. Thinks he is a demon, when walking feels that some one is pursuing, suspects everyone and is constantly apprehending trouble. Continually under two influences, one inciting to murder, the other urging him to be good. Imagines that he hears voices of mother and sister who are far away. Has a devil whispering blasphemous words in his ear. Constant inclination to curse and swear.

The anacardium patient is chiefly characterized by his ugliness and frightful profanity. *Profanity*

The antimonium crude patient is peevish, the chamomilla cross, the belladonna pugilistic, the nux vomica ugly, but the anacardium patient is cussedness itself.

Chronic Maniacal states

We have found anacardium more often curative in chronic maniacal states than any other remedy.

APIS MELLIFICA

Mental excitement, with great talkativeness, jealousy and sexual irritation. Irritable and fidgety, nothing seems to satisfy. Constantly busy, but does nothing right. Mania in women from a sexual cause.

This remedy will prove helpful when the peculiar mental state is accompanied by an inactivity

Kidneys

of the kidneys, with puffiness under the eyelids, and an aggravation of the mental excitement at 4 P. M.

ARSENICUM ALBUM

Bugs

Sees ghosts about him and vermin and bugs crawling upon his bed. Hallucination that there is some one by his side who imitates all his actions. Fear that he will be obliged to kill some one.

While not as frequently indicated in mania as melancholia, we have had some excellent results with this drug when the peculiar restlessness, thirst, physical exhaustion and midnight aggravation were present.

BELLADONNA

The belladonna patient, in violent fury, bites, strikes, kicks and tears everything to pieces.

His talk is excited and incoherent. He may be exceedingly brave and pugilistic or terrified by the horrid creations of his disturbed brain. Every imaginary hallucination of sight may pass before his eyes, ghosts, hideous faces, dogs, bulls, animals, men or instruments of torture.

Violent pugilistic

These patients are extremely fickle and their mental states are constantly changing. They may at times dance, sing and laugh, but the mood soon ends in an outburst of rage and violence.

No other homœopathic remedy is more frequently indicated or as often curative in mania as belladonna. The intense cerebral congestion, wild delirium and extreme general hypersensitiveness of all the senses produced in the provers is a perfect picture of this disease.

Frequently indicated

A mistake is often made in giving it too low. We have found it when clearly indicated in these highly erethistic cases most effectual in the thirtieth or two hundredth potencies.

CAMPHOR.

The provings of camphor show its power of producing marked maniacal excitement, manifested in violent overt attacks upon those about them, even to homicidal attempts. Some provers have also exhibited suicidal impulses.

Clinically it has proven most effective in mania when attending or following the stage of intense

Excitment with prostration

excitement great physical exhaustion and prostration are present and the vital powers are at the lowest ebb. When the cold clammy skin and weak pulse show that fatal collapse is imminent camphor often vies with veratrum in rallying the vital forces and revivifying apparently hopeless cases.

CANTHARIDES.

Cantharides resembles belladonna in its violent excitement. These patients tear the clothing

Biters

and are especially inclined to bite anyone who approaches or they will bite sheets and bed clothing. They are restless, moan and groan and often bark like a dog. Hallucinations are present and they see and converse with people long dead. Like anacardium, they show a strong tendency to swear and are worse at night.

Pupils dilated face yellow

The eyes are bright, pupils widely dilated, face yellow (unlike the red face of belladonna) and wrinkled, with a constant frown and expression of intense suffering. The slightest touch aggravates the symptoms, as also does any dazzling object, like a mirror or a glass of water.

The chief characteristic and the one which usually calls for the selection of cantharides is

Sexual excitement

the intense, almost overpowering sexual excitement which accompanies the violence. This sexual excitement is the result of intense erethism

and inflammation of the sexual organs, driving the patient to seek sexual gratification. Hyoscyamus and veratrum album have also sexual excitement, but in these drugs there is a mingling of the psychical and the physical. In cantharides the excitement is solely physical.

Excitement paroxysmal

The violence of cantharides is paroxysmal and terrific while it lasts. On account of the sexual excitement the cantharides patient seeks relief in constant masturbation.

This remedy is frequently indicated when the chief exciting cause of the disease has been masturbation. Associated with this mental group we usually find the characteristic bladder symptoms of cantharides. *Bladder*

CHAMOMILLA.

Chamomilla is occasionally indicated, but usually as an intercurrent remedy when its characteristic symptoms are present. These patients are cross, irritable, snappish, fretful and cannot give a civil answer. They are always out of humor and cannot bear to be spoken to, touched or have anyone near. Hallucinations of hearing are said to be produced by this drug, but we have frequently prescribed it on this indication and in every case have failed. The mental condition is worse during menstruation. *Irritability*

CALCAREA CARBONICA

Visual hallucinations

Visions of faces and persons when eyes are closed. Delirious talk about fire, rats, mice and murder. Sees cats, curs and other animals about him and fights them off. Imagines that some one else is walking beside her, that something hanging over a chair is a person sitting there.

Constitutional

Calcarea carbonica is only beneficial when, in addition to its peculiar mental symptoms, its general constitutional symptoms are present.

HYOSCYAMUS

Changeable

The hyoscyamus is not as violent and dangerous as the belladonna, and is less wild and more easily controlled than the stramonium patient. She sings, cries, laughs, scolds, swears, talks obscenely and often accuses herself and her husband of infidelity. These patients often refuse

Fear of poison

food, claiming that it is poisoned. The fear of poison is one of the common delusions and no other drug will as often remove it when present. The delusions and moods are exceedingly changeable, but the patient is usually jolly and good-natured, but nervous, restless and sleepless.

Sexual excitement

There is great sexual excitement, with much lascivious talk and constant desire to expose the person and remain naked. Hyoscyamus is especially suitable for young hysterical, nervous and easily excited women.

Hyoscyamus is very often demanded in mania. When indicated no remedy is more often curative.

LACHESIS

Lachesis is useful in cases of insanity when there is great loquacity. These patients talk incessantly and so rapidly that it is almost impossible to understand them. *Loquacity*

A common delusion is that they are dead and preparations are being made for the funeral. They are proud, jealous, suspicious and often have the delusion of being under superhuman control.

NUX VOMICA

No case is more disagreeable than a nux maniac. Opposed to everything that is done for him, ever ready to fight with those about him, he may from pure cussedness refuse to eat or drink and require forcible alimentation to keep him alive. He is oversensitive, cannot tolerate noise, talking, strong odors or bright light. He is obstinate, cross, quarrelsome and ugly. Bryonia is also an ugly remedy, but the bryonia patient wants to keep still and be undisturbed, while the nux patient is restless, uneasy and aggressive in his ugliness. While presenting no marked delusions, from an apparent perversion of the whole *Quarrelsome obstinate*

moral nature these patients are often among the most difficult to manage.

With these marked mental symptoms we find the usual characteristics of nux, so that one is not likely to make a mistake in the selection of the drug. When indicated we have found this remedy one of the most satisfactory in its results, although it is often slow in its action and requires to be continued some time.

PHOSPHORUS

Violent delirium, with restlessness, fear of death and constant desire to escape. Loud screaming, with attempts to bite, and strike those about him. Hallucinations of sight, sees faces leering at him wherever he may look. Nervous excitement, starts at the slightest noise. Intense sexual desire, with entire shamelessness and constant attempts to remove all the clothing and go naked. Imagines that he is in several pieces and cannot properly adjust the fragments. Irritable, fretful and peevish. Nervous and fearful, worse toward evening, sleepless before midnight.

Phosphorus is not as frequently demanded as some other drugs, but exceedingly satisfying when indicated. One of its most positive symptoms is the presence of hallucinations of sight—"faces peering from every corner." With this symptom present, we have never failed to relieve

Sees faces everywhere

the patient by the exhibition of phosphorus. It is most frequently demanded in cases with sexual excitement and where the disease has arisen from a depleted state of the brain and general nervous system.

Exhausted brain and nervous system

PLATINA

Proud, haughty, arrogant, imagines herself superior to everyone about her. Imperious and dictatorial. Thinks she does not belong in her own family. Treats in a contemptuous and pitiful manner people usually venerated. Everything about her seems small and all persons about her physically and mentally inferior to her. Changeable mood, great joyousness alternating with sadness and depression, anxious, morose, quarrelsome, peevish, irritable, easily offended. Nymphomaniacal, with painful sensitiveness of the genitals.

Haughty imperious dictatorial

The ever-present proud, arrogant, contemptuous mood will preclude any possibility of mistake in the selection of this drug. It is most frequently indicated in weak hysterical women, with a tendency to nymphomania, caused by irritation and excitement of the genitalia.

Nymphomania

SPONGIA

Happy, joyous, with a constant desire to sing and whistle, followed by distraction of mind and

DEPRESSED TYPE OF MANIC-DEPRESSIVE INSANITY

disinclination for all work. The gaiety of spongia resembles hyoscyamus, but is longer continued and less variable.

Tuberculous

Especially valuable in cases with a tuberculous diathesis and in patients subject to glandular enlargements or where organic disease of the heart exists.

STRAMONIUM

Delirium of fear, violent with hallucinations of sight; sees bugs, cats, dogs, rabbits and horrid beasts on all sides of him. Aggravation from the darkness, being alone and in the morning.

Ameliorated by light and company.

Fearful delusions

Constant movement of the limbs during excitement. Great aversion to fluids, the sight of which, at times, will almost produce convulsions. Incorrect ideas of distance and the sight of surrounding objects. Screaming, catching and striking at frightful imaginary spectres, which fill them with the utmost terror. Furious, bites and strikes at everyone who approaches. Fear with sensation as if the bed was being drawn from under her, and that everything was falling on her. The horrifying images appear at the side more often than in front. Sees black objects, black people and black clouds. Things and persons around him appear changed. Imagines that he is alone and abandoned in a wilderness.

Talkative. Imagines that he is very large and tall, but surrounding objects are small. Hallucinations of hearing, hears dancing music and men talking in foreign tongues. Hears a voice under the bed at night. Exposes genitals.

Changeable

The mental state of the stramonium patient is subject to sudden and marked changes. One moment he is filled with horrid fears, the next he is merry and joyous, sings and dances; the next, full of rage, he vigorously attacks all about him. At times he is proud and haughty, arrogant and intolerant of his associates, or the senses may be dull and a stupid indifference to everything be manifested.

Severest cases

While representing by its provings a wide range of mental symptoms, stramonium has achieved its greatest curative triumphs in the severest class of cases.

When the delirium is wild and furious, and the patient is possessed by the most fearful delusions and hallucinations, then is stramonium most clearly indicated and seldom fails to bring speedy relief.

VERATRUM ALBUM

Delirium with coldness over the whole body and cold sweat on the forehead. The patient prattles about religious subjects and vows to be performed. Imagines he is a prince and behaves

in a haughty manner. Persistent raging, with great heat of the body. Noisy, cursing, howling, with frequent attempts to escape. Runs about howling and screaming, worse in the evening. Ill-humored, irritable, vexed from slightest cause. Rushes about room and tries to kiss everyone. Hallucinations of sight, room appears full of people, with whom the patient converses for hours. Sleeplessness, with constant talking and loud laughter.

Furious delirium with exhaustion

The furious delirium of veratrum album, with violence and destructiveness, resembles that of belladonna and stramonium. In veratrum album, however, we have much greater physical exhaustion, evidenced by a weak pulse, coldness of the body and cold sweat on the forehead. The veratrum patient must have speedy relief or die. Veratrum album is especially efficacious in women, where the disease is dependent upon some disorder of the sexual organs and is aggravated at each menstrual period, or in women whose menses have been suppressed and who imagine themselves pregnant.

Sexual organs

Many of these cases are subject to amorous frenzies, which are strangely mixed with the wildest religious vagaries.

VERATRUM VIRIDE

Veratrum viride has few mental symptoms recorded in its provings, but has been found ex-

tremely useful in many mental diseases. Its selection is usually determined by its general physical conditions.

Temperature high, pulse and respiration rapid

When the temperature is very high, the pulse exceedingly rapid and the respiration immoderately hurried, it will often accomplish wonders. Its sphere of usefulness, however, seems limited to the resuscitation of the physical powers and when this is accomplished little can be expected from it as regards the restoration of the patient's reason.

While any of the remedies mentioned may be needed, the four mainsprings in the treatment of maniacal states are belladonna, hyoscyamus, stramonium and veratrum album.

DEPRESSIVE STATES

The depressive states appear in three forms, simple retardation, the delusional form and stuporous depression.

SIMPLE RETARDATION

Mildest

This is the mildest form of the disease. Except in a few instances, which result from acute illness or mental shock, the onset is gradual and insidious. The prodromata are slight and ill-defined, consisting of a general sense of ennui, insomnia, loss of appetite and discouragement. The whole aspect of the patient reflects the men-

tal gloom. The sad countenance and sluggish movements evidence the entire lack of interest in the affairs of life. The society of wife, children and friends becomes distasteful. Irritable, peevish, gloomy, sullen, all society is shunned and the patient remains by himself with bowed head and folded arms and broods over his condition. Every thought, every word, every action is analyzed. Intellectual exertion is an impossibility. Conversation is limited to simple responses uttered in low inexpressive tones. All actions, eating, dressing or walking are slow and constrained. The simplest tasks are burdensome. Volition seems paralyzed and every decision, however simple, is made with difficulty, and after it is made is regarded as wrong. The emotional attitude is one of constant gloom and despondency. The past has been a complete failure and the future offers no hope. However spotless their past lives and deep their religious convictions may have been, they are filled with their own unworthiness and the utter hopelessness of their condition. Sometimes filled with compulsive ideas, they are forced to dwell continually upon the horrors which await them and their families.

Mental analysis

Volition paralyzed

Constant glooom

The condition of retardation may deepen into a state of stupor. Patients then keep to their beds, mute, insensible of their surroundings and

Stupor

incapable of comprehending the simplest questions, or if they answer, the replies are slow and hesitating. Food placed before them is unnoticed and they have to be fed with a spoon. While incapable of caring for themselves, they are not filthy.

This stupor soon disappears, leaving no remembrance of the occurrences during this period.

Circulation, digestion, sleep

Physical symptoms are chiefly limited to the circulatory and digestive systems. The extremities are cold and cyanotic, the pulse small, slow and of low tension. The temperature may be subnormal. The tongue is coated, breath foul, the bowels constipated, appetite poor and the digestion imperfect, weight is lost, its return signaling the end of the attack. Sleep is insufficient and unrestful. Cephalalgia and pains in the limbs may be present and the reflexes diminished or lost.

The duration of the attack varies from a few months to over a year.

DELUSIONAL FORM

The delusional form is characterized by numerous depressive or hypochondriacal delusions in addition to evidences of retardation.

Slow onset

The onset is usually slow. Preceding the attack a general sense of ill feeling may prevail or

unusual joyousness and exhilaration of spirits. Occasionally the immediate precursor is some mental shock or acute illness.

Intense depression

The mental state is that of intense despondency and self-depreciation. The present affords no joy, the future is hopeless. Their past lives have been filled with mistakes or crimes against others and themselves. They have ruined their families and friends and nothing but perpetual misery awaits them. Poverty stares them in the face or imprisonment or execution for their numerous crimes.

Hypochondriacal delusions

Hypochondriacal delusions are of frequent occurrence. In these cases the mind dwells continually upon the functions of the body. They continually assert that they are suffering from some incurable disease and rush from one doctor to another seeking relief. The victim has syphilis, which is decaying his hair, skin and limbs and is infecting his family. Cancer is destroying the stomach and bowels, so that neither food nor drink can be taken. The heart is about to stop from weakness and he asks you to feel his pulse to corroborate his statement. He is paralyzed and will not move a limb until he forgets his fancy for a moment. His brain is filled with lead, so that he cannot think; the limbs are made of glass and must not be touched lest they should be broken. Or he may assert that there

is a ball of fire in his stomach, or a live animal in his intestines. Women frequently assert that they are pregnant and accuse themselves of sexual indiscretions and crimes. Others filled with persecutory delusions declare that the police are upon their track and that they are about to be executed, boiled alive, or burned at the stake. Borne down by the weight of their sins, they may assert that they have committed the unpardonable sin for which they are eternally damned or that the devil has already taken possession of them. Occasionally possessed of hallucinations, they may be distressed by the fearful groans that fill their ears or complain of the poisonous vapors which they are constantly inhaling, or the horrible sights by which they are surrounded.

Oriented

The consciousness may, however, be unclouded and no signs of disorientation be apparent. The surroundings may be fully comprehended and questions answered correctly. Any attempt at letter writing, however, reveals their retardation of thought and their conversation continually tends to revert to their delusions.

Clear insight into their condition may be present.

Their emotional attitude is always that of gloom and despondency. They take little interest in their surroundings, but are constantly engrossed by their miseries, which they may lament, by the hour, in monotonous groans.

Actions

Their actions may be slow, hesitating, and retarded or impelled by an unceasing restlessness, they may continually pace up and down their apartments, pick at their clothing, pull out their hair and vent their indescribable agony in groans and moans. Most of these cases are suicidal and attempts at suicide are very frequent.

STUPOROUS DEPRESSION

This form is usually preceded by simple or delusional depression. These patients exhibit complete inertia and utter indifference to their surroundings. Consciousness is entirely befogged. Overwhelmed by a multitude of variegated and incoherent hallucinations and delusions, these patients sit or stand mute, motionless and absolutely without will power enough to rouse themselves out of their stupor. Filled with the most horrible phantasms, they live in one continuous frightful nightmare, which completely absorbs their attention. Everything about them has been changed and transformed. The world is being consumed by fire or congealed with ice. The rooms in which they are confined are gradually closing in upon them. Friends are racked and tortured before their eyes. They themselves have been transformed into the most horrible of animals. Their food is mixed with the blood of their dearest friends. All mental ac-

Inertia

Consciousness clouded

Frightful delusions

Complete mental retardation

tion is paralyzed with horror. Mental retardation appears complete, rendering them incapable of feeding, clothing or caring for themselves in any particular. They exhibit no activity and simply lie in bed, stupidly indifferent to everything that transpires about them. Yet the expression of anxiety which occasionally flits over the countenance, the resistance to passive movements and their occasional impulsive attempts at suicide reveal the terror by which they are possessed. Occasionally a few words or sentences are slowly and indistinctly uttered.

With this mental state are associated numerous signs of physical disturbance. The eyes are lusterless and the facial expression dull and stupid. The patients complain of dizziness, ringing in the ears, numbness and pain in the head and vague pains in the limbs.

Tongue, pnlse, temperature, skin

The tongue is coated, breath foul, bowels constipated and the digestion impaired. Utterly without desire for food, forced feeding is a necessity to prevent starvation and with it weight is constantly lost. Sleep is diminished and what is obtained is disturbed and unrefreshing. The pulse is slow and of low tension, evidencing the weakened heart's action. The temperature is subnormal. The skin is dry and foul or warm or clammy, except at the extremities, which are blue and cold. Cutaneous sensibility is decreas-

ed and the tendon reflexes may be diminished or lost.

The duration of the depressed type varies from a few days to several months or even years. The prognosis is favorable for recovery from the attack if not complicated by severe somatic lesions.

Physical improvement if attended by increased weight ordinarily indicates convalescence.

TREATMENT

The general treatment varies according to the type of the disease. In the mildest cases, rest, change of scene with cheerful company and mental recreation may be all that is necessary to effect a cure.

In the severe forms, when the disease is established, a most careful systematic course of treatment must be pursued, either in a sanitarium or at home. The patient should be put immediately in bed and kept there under the constant watch of a competent nurse. As all cases are more or less suicidal, the greatest caution must be observed, night and day, lest they find some opportunity to kill themselves. Everything should be removed from the room with which they could possibly injure themselves. Cunning, crafty and desperate, unless the greatest care is observed they will succeed in carrying out their suicidal

Constant watchfulness

designs. As the majority of these cases are weak and anæmic, milk, eggs in the form of custards or egg-nogs, strong broths, prediges*Nutrition* meats and nitrogenous foods should be administered in liberal quantities. As the taking of food in many cases, either from lack of appetite or on account of delusions, is strenuously objected to, forced feeding is often necessary. Many patients will take sufficient nourishment if fed with a spoon by the nurse, in others the nasal tube will have to be brought into requisition. *Forced feeding* When forced feeding is required, not less than a quart of milk and egg or strong broth should be given twice daily.

When sleeplessness is persistent, it can be combatted by hot baths at night, lasting, if necessary, from half an hour to an hour.

When the physical powers are resuscitated the patients if still depressed should be gotten out of bed into the open air and every possible means adopted for diverting the mind and turning it back into its normal channels.

The remedies which we have found most useful in treating depressed states are Aconite, Actæa racemosa, Antimonium crude, Alumina, Arsenicum album, Baptisia, Belladonna, Calcarea Carbonica, Cactus, Digitalis, Gelsemium, Ignatia, Lilium tigrinum, Natrum muriaticum, Nux moschata, Pulsatilla, Phosphoric acid,

Sepia, Sulphur, Veratrum Album, which should be given according to the following indications:

ACONITE

This remedy is not as frequently indicated in melancholia as in some other of the mental disorders. In melancholia of pregnancy it may prove efficacious when we find vertigo with nausea and great depression on account of fear of death in her approaching parturition, causing ceaseless weeping and lamentations. There is also great restlessness and sleeplessness or sleep disturbed by disagreeable dreams.

Pregnancy

ACTÆA RACEMOSA

Thinks she is becoming crazy. Greatly depressed by fear of death and a sensation as if something had settled down upon the brain, rendering everything dark and obscure. Severe pains through the eyes and whole occipital region, as if they were penetrated by sharp instruments.

Especially suited to rheumatic and neuralgic hysterical subjects who have suffered much from uterine disorders.

Rheumatic sufferers from uterine disorders

ALUMINA

Sad, depressed, dull, stupid, filled with an indescribable fearfulness. Peevish, obstinate, not

inclined to do anything. Loss of appetite, with a longing for indigestible substances and obstinate constipation. Restless unrefreshing sleep.

This remedy is not very frequently demanded. but when indicated speedy and effectual in its action.

ANTIMONIUM CRUDE

Undue anxiety about the present and future. Obstinate and taciturn, inclined to suicide by shooting, especially at night. Dull, apathetic, regardless of the calls of nature. Tongue coated white. Alternate diarrhœa and constipation. Wakeful at night, sleepy in daytime.

Dementia

Adapted to the most serious forms of the disease. When dementia seems imminent it should not be forgotten.

ARSENICUM ALBUM

If requested to name the most reliable and most frequently indicated remedy for severe acute cases of melancholia we should say without hesitation arsenicum album.

Desperate cases

A typical arsenicum case is one of the most serious mental diseases encountered. A glance will clearly reveal the desperate character of the malady. The pale face, pinched features, shriveled skin, haggard and anxious countenance, weak, rapid, wiry pulse and rapidly increasing

emaciation portray the intense virulence of the attacking foe. The tongue is red, tremulous, parched and the patient is continually tortured by the characteristic arsenicum thirst. Constantly impelled by an overpowering restlessness, if allowed to remain upon their feet the victims unceasingly pace up and down their apartments night and day, wringing their hands and bewailing their fate. In their agony they pull out their hair and bite their nails to the quick, often causing deep ulcers. At last overcome by their mental anguish and driven to frenzy, if not prevented, they seek an escape from the horrors of their present misery through suicide. Not only are they suicidal, but they may in their desperation mutilate themselves, pull out their eyelashes, or tear off their eyelids and inflict serious physical injuries.

Restlessness
Self-mutilation
Suicidal

In bed in their restlessness they constantly roll from side to side and night and day moan, groan and bitterly lament their direful fate.

Yet these desperate and apparently hopeless cases, if prevented from injuring and killing themselves and properly nursed and sustained by sufficient nourishing food, by the marvelous influence of arsenic are often restored to perfect health of body and mind.

Frequently indicated effective

BAPTISIA

Baptisia is especially indicated in the worst

forms of stuporous depression. When the stupor is deep, the temperature high, the pulse and respiration rapid, the countenance dark and sodden, the eye expressionless, the breath fetid, the tongue dry and brown, the stools involuntary and offensive, its effects are often little less than miraculous.

Deep stupor temperature high, pulse and respiration rapid

BELLADONNA

The belladonna case is greatly depressed and subject to violent attacks of weeping attended by intense fearfulness. The head is hot, the face flushed, the pupils dilated. Sleeplessness prevails, or there is great sleepiness, the patient awaking with a start the moment she falls asleep.

Depression with cerebral congestion

When depression occurs in connection with marked cerebral congestion no other remedy is as satisfactory, especially when given in the lower potencies.

CALCAREA CARBONICA

Apprehensive of misfortune, thinks she will die or become crazy, peevish, obstinate. Face pale. Pyrosis, constipation and flatulency reveal the disordered condition of the digestion. The circulation is poor and the sleep unrefreshing.

Scrofulous women

Adapted to poorly nourished scrofulous phthisical women.

CACTUS

The cactus patient is sad from her unalterable conviction that she is about to die from the incurable disease with which she is afflicted, or that some terrible disaster overhangs her. She is taciturn and inclined to remain by herself and weep constantly. Attending the mental symptoms we find the characteristic heart symptoms and a sensation as if some heavy weight were pressing down upon the brain, accompanied by pulsations in the top of the head. The patient is also easily frightened and often awakens at night in a panic.

Apprehensive, taciturn, tearful

Heart

DIGITALIS

Great anxiety, depression and dread of the future, with sadness and weeping worse about six P. M. and aggravated by music. Morose, irritable and gloomy, weakness of memory, dull, stupid and confused.

The chief indication of digitalis is a slow pulse, and whenever this symptom appears attended by a general appearance of exhaustion and debility, a prompt and satisfactory improvement is sure to follow its exhibition.

Depression, slow pulse, exhaustion

CHINA

China may be called for when the depression has been produced by some excessive physical

DEPRESSED TYPE MANIC-DEPRESSIVE INSANITY

drain, such as flooding leucorrhea or masturbation. *Physical drains*

The most satisfactory results from this drug are obtained from the tincture in appreciable doses.

GELSEMIUM

Gelsemium is indicated where there is fever attended by marked mental dullness and a desire to remain quiet and undisturbed in bed. Lack of confidence and inability to make any decision is also a marked characteristic. There also exists a desire to throw one's self down when looking over a height. A dull tired aching at the base of the brain is also frequently present. *Base of brain*

IGNATIA

When the disease has been produced by shock or long brooding over real or imaginary troubles and when the relief of tears is denied we find the relieving remedy in ignatia.

These patients are silent and prefer to remain by themselves and brood. Proffered sympathy is rejected and yet if it is not offered they imagine themselves neglected by their friends.

They are obstinate and taciturn, often refusing to speak when addressed. Although given to brooding, they may become hysterical and in- *Hysterical worriers*

dulge in senseless laughter. The sleep is restless and often accompanied by nightmare. All these patients are inclined to be hysterical.

LILIUM TIGRINUM

Memory

Depression of spirits, inclining the patient to weep. Timidity apprehensiveness of some fatal disease or becoming insane. Loss of memory and difficulty in the selection of proper words when conversing. Pressure upon the rectum and irritability of the bladder.

Uterus, ovaries

Applicable to neuralgic women who have suffered from functional or slight organic disorders of the uterus and ovaries.

NATRUM MURIATICUM

Prematurely old look

The natrum muriaticum patient is emaciated and the face has a prematurely old look. There is loss of memory and disinclination for all mental and physical work. She is easily fatigued and greatly prostrated mentally and physically

Paroxysms of weeping

These patients shed floods of tears, and the more they are comforted the more violently they weep. They are ill humored and easily provoked by any contradiction. These cases seem to revel in their grief and derive satisfaction from recalling all the disagreeable occurrences of the past for the purpose of indulging in melancholy meditation. They are taciturn, avoid companionship and

think that they are pitied by everyone because of their misfortunes.

Especially indicated when the disease has followed intermittent fever and when the attacks of weeping are periodic in their occurrence.

NUX MOSCHATA

Nux moschata is especially adapted to hysterical melancholics. The mood is changeable, one moment the patient laughs, the next she cries. The memory is poor and there is marked confusion of ideas and an inability to continue a train of thought for any length of time. Any attempt at writing reveals an incoherency in the ideas. There is absence of mind, slowness of ideas and difficulty in answering questions. There is great inclination to faint and a tendency to sleepiness.

Hysterical

Faintness, sleepiness

PULSATILLA

Frequent weeping, solicitude concerning health, despair of salvation, with constant praying and great anguish, causing her to desire to commit suicide.

The grief of the pulsatilla patient is changeable and she is subject to alternate moods of crying and laughing. The pulsatilla patient is at times depressed and tearful, at others cheerful and happy. Mild, gentle and affectionate in disposition, she is easily persuaded, consolation is

acceptable and she enjoys lively company and good advice.

Adapted to mild, tearful natures with little vim, pulsatilla is frequently demanded in the mel-
Pregnancy ancholia of pregnancy complicated by gastric disorders.

PHOSPHORIC ACID

Dread of the future, with anxiety and doubt about recovery. Disinclination to talk, sadness, grief and disposition to weep. Melancholia produced by care, grief, sorrow or disappointed love,
Physical drains excessive menstruation, masturbation or physical exhaustion, caused by overactivity of the kidneys.

SEPIA

Nervous, sensitive to the least noise. Sadness, worrying about her health and the future, with frequent attacks of weeping, worse in the evening and in the open air. Dread of being
Aversion to family alone, very irritable, indifference and aversion to members of her own family. Indisposition for mental work, with weak memory and difficulty in expressing her ideas. Indolent mood. Restless sleep, disturbed by anxious dreams, awaking in a fright.

Weak empty-gone feeling in stomach, frequent desire to urinate, urine thick, slimy, very offen-

sive, with yellowish sediment. Profuse yellowish or white acrid, exceedingly offensive leucorrhea. *Offensive leucorrhea*

Sepia is chiefly useful when the disease occurs in women whose constitutions have been sapped by long-standing leucorrheas and chronic organic diseases of the uterus and ovaries. *Uterus and ovaries*

SULPHUR

Disposition to weep, wishes to die, but fears for her salvation, inclined to dwell upon religious subjects, apprehensive of future misfortune, variable mood, one moment crying, the next laughing, indisposition to mental or physical labor, with slowness of mind and body, great absence of mind and forgetfulness, peevish and irritable.

Constant heat in top of head; shooting pains in forehead and temples from within outward, worse from eating or stooping, better when pressing the head and when moving; pressing dull pain in vertex and sinciput, rousing from sleep early in morning, ceasing before noon.

Drowsiness during day and wakefulness at night, unrefreshing sleep, disturbed by frightful dreams.

Sulphur is exceedingly useful as an intercurrent remedy in many chronic cases where the psoric element predominates. It is also fre- *Intercurrent remedy*

quently useful as a developer, bringing out symptoms at first hidden and unapparent or reviving the suspended action of an indicated drug, causing the patient to go on to a rapid recovery. It seldom effects a cure unaided by other drugs.

VERATRUM ALBUM

Anxiety as if she had committed an evil deed, sadness, despondency and grief, with despair of her salvation. Fearful and apprehensive of misfortune. Mind dull and stupid, with obstinate taciturnity.

Paroxysms of pain in various parts of the head. Frontal headache, with nausea, vomiting and fever, pressive pain in the top of the head. Cold spot on vertex. Face pale, eyes fixed and sunken, with blue or green circles around them. Nose cold and pointed, cold sweat on face and forehead. Sleeplessness or sleep disturbed by bad dreams.

Great thirst for cold drinks. Ravenous hunger or loss of appetite. Constipation or exhaustive diarrhœa. Excessive weakness and sudden sinking of strength. Skin blue and cold. Pulse frequent, small and weak, often intermittent, at times almost imperceptible, defective circulation, with general appearance of lowered vitality.

Severe cases depression with stupor

Especially efficacious in the apparently most hopeless cases of depression with stupor, where

the patient sits in a stupid manner with the head bent forward, taking no apparent notice of anything, answering in monosyllables or not at all; often eating nothing unless fed, skin cold and blue, pulse weak and intermitting. With the foregoing symptoms we have occasional fainting spells with temporary unconsciousness and suspension of the heart's action.

Under the influence of veratrum the depressed vital powers are often soon revived and the patient advances to a complete recovery. After a seeming recovery the patient is liable to relapse if the medicine is too soon discontinued, but when once the cure is fully accomplished it usually remains permanent.

MIXED TYPES

To Kraepelin we are indebted for the description of the peculiar features of this class of cases. They are characterized by the appearance in the patient at the same time of symptoms of excitement and depression.

These mixed states have been divided by him into six chief types.

(1) *Irascible mania*, where depression replaces the ordinary elation. These cases exhibit marked maniacal excitement, with more or less constant irritability. Nothing pleases them and they denounce everybody and everything about

Irritable, faultfinding

them. Some upon the slightest provocation burst into paroxysms of rage or violence. Others are simply disagreeable and fault finding. They complain of their attendants, their companions, their food and all their surroundings. One grievance is no sooner remedied than another takes its place. They are persistent instigators of trouble and vex and annoy everyone with whom they come in contact. They are unstable, restless and reveal a moderate flight of ideas.

(2) *Depressive excitement* embraces those cases in which the restlessness is entirely disproportionate to the emotional despondency. These patients talk continuously, but there is no variation to their conversation. They harp continually upon the same strain and annoy those about them by reiterating the same delusions, usually of a hypochondriacal character. While asserting that they have been maltreated, poisoned and that death is inevitable, they evince little sadness or anxiety and are capable of applying themselves without much exhaustion. They may also on occasions evince some humor or become irritable and aggressive.

Little sadness

(3) *Unproductive mania* is a maniacal state accompanied by a dearth of ideas. Perception is slow and defective. In conversation every question may have to be repeated before it is comprehended. It is with difficulty that their atten-

Dearth of ideas

tion is fixed and replies are evasive and inappropriate. While appearing weakminded they may possess considerable intellect. The mental state may be subject to wide variations, the patients at one time giving a ready response to questions, at another seeming devoid of comprehension and incapable of responding. They are elated, happy, playful and prone to senseless laughter. Conversation is incoherent and limited. They speak slowly and are inclined to reticence, especially if left to themselves. Thought seems difficult in the beginning of conversation, but is less manifest if the interview is prolonged. An unnatural irritability is observable. By their grimaces, dancing about, frequent changing of their clothing and rearranging of their hair they reveal their pressure of activity, but lack the constant business of mania. Some remain quiet and orderly and only a careful examination can detect their excitement. An elated frame of mind is, however, present, evidenced by an unnatural irritability and a tendency to rudeness and senseless outbursts of laughter. Some are inclined to sit about inactive, but are easily excited to immoderate laughter or without cause may become rude and impudent. Any regular employment is impossible, but they are prone to mischievousness and destructiveness and inclined to steal and collect useless articles, with which they fill their

Variable mental state

Pressure of activity

pockets and litter and adorn their apartments. Causeless outbursts of anger are of frequent occurrence and transient periods of genuine mania may occur.

Elation

(4) *Manic stupor* characterizes another group of cases. In these cases elation takes the place of the ordinary despondency. These patients, although well oriented, lie in bed, indifferent to their surroundings, occasionally laugh, without any cause, and refuse to answer any questions.

Sudden excitement

In the midst of their stupor suddenly a state of excitement may appear, during which the patient may rush about, tear his clothing, smash furniture, smear the walls, sing and talk boisterously for a few hours and then relapse into his previous state. For short periods some patients are quiet, orderly and converse in an intelligent manner.

Memory

The facial expression may be bright and cheerful and pleasant or fixed and staring. The patient may have a perfect remembrance of his actions, but is unable to explain them.

Manic stupor may develop, for a short period, in a pronounced manic state between a depressive stupor and a manic state.

(5) *Depression with a flight of ideas.* These cases, though despondent and mute, read and understand what occurs about them, although their general attitude and appearance evidences retardation. When sufficiently recovered to ex-

plain their condition these patients state that their minds were so flooded with ideas that they could not give them expression. Some while unable to speak can write and their productions are often filled with delusional ideas of fear and persecution.

Flooded with ideas

(6) Another type is characterized by *depression*, with *flight of ideas* and *emotional elation.*

These patients are usually quiet, happy, distractable, easily irritated, given to witticisms and in conversation are easily aroused to a flight of ideas and at times even sound associations. They remain quiet in bed, occasionally volunteering a remark, or burst into boisterous laughter, but are liable to become suddenly violent, indicating a condition of inner tension.

Attacks of *double form* may also be encountered. These consist of two periods; one of depression, the other of excitement, usually beginning with depression. The transmission from depression to excitement may be sudden or gradual, with an interyening period of the mixed form of manic-depressive insanity.

Two periods

The characteristic symptoms of these periods do not differ from those of the depressed and excited states already described.

The mixed states occur usually in the transition periods, from manic to depressive states and vice versa, and it is only by the history, of the

Transition periods

fully developed disease, that we are able to recognize them as types of manic-depressive insanity.

GENERAL COURSE

Attacks of manic-depressive insanity show a marked tendency to recur. Several types are recognized, designated according to the forms assumed, as

(A) Periodic insanities, which are divided into
  (a) Recurrent Mania
  (b) Recurrent Melancholia
(B) Alternating insanity
(C) Circular insanity
(D) Irregular forms

(A) Periodic insanities, (a) Recurrent Mania. Recurrent mania is characterized by its mildness, short duration, complete mental restoration and subsequent frequent recurrence.

The length of the attack varies from a few days to several months.

Characteristics

Mild recurrent mania presents three characteristic symptoms, rapid flow of speech, constant activity and mental elation unattended by hallucinations, illusions, delusions or mental obscurity.

The disease may appear without warning, or a slight feeling of discomfort, loss of appetite, with a marked aged appearance may precede the attack. Suddenly all morbid feelings disappear

and a general sense of elation possesses the patient. The eyes become bright and sparkling, the face animated, the speech rapid, fluent, bright and witty. An unusual excitability appears which rapidly increases, joyous and full of a self-satisfaction and confidence, the whole countenance reflects the general sense of happiness. New enterprises are projected far beyond the limits of common sense, love affairs come to the fore, or the patient may plunge into dissipation and every form of excess. Restless and impelled to constant movement, he flies from one project to another, with no fixation of purpose; jealous of any opposition, any attempted restraint calls forth a storm of abuse and recrimination. The whole mental frame suggests the early stage of drunkenness in an excitable person. Full of ever-changing impulses, he has no time for sleep, his active brain keeping him in constant motion. The same impelling restlessness prevents his taking sufficient food and his bodily weight decreases, although the appetite may be good and assimilation perfect.

Excitability

Drunkenness

After a few days or weeks, seldom months, the excitement abates and is succeeded by a stage of exhaustion. The patient now feels tired, faint, mentally and physically worn out, mildly depressed and soon passes into his normal state.

Occasionally the attack is more severe, with marked motor agitation, logorrhea and incoherence of speech.

Prognosis favorable

The prognosis, except in the severest cases, is favorable and the disease rarely leaves any signs of mental deterioration.

RECURRENT MELANCHOLIA

Advanced life

This is a disease of advanced life. While not as common as recurrent mania, it is not infrequently encountered. In women it most often appears as a post-climacteric trouble. In men failure in the life work, attended by money losses, ill success in business are the usual causes. While in some cases it is traced to direct inheritance, it is not as often based upon inherited instability as is recurrent mania.

It is characterized by its mildness and its liability to recur at regular or irregular intervals.

Although devoid of delusions, the depression passes beyond the physiological limits. Possessed by an overpowering sense of lassitude and gloom, the patients recognize its nature and exert all their powers in vain to overcome it. Slow in its inception, the disease is attended by sleeplessness, gastric and intestinal disorders, cephalalgia, poor circulation, coated tongue, loss of appetite, decrease of weight, inactivity of the kidneys, præcordial anxiety, slowness of thought, impaired memory and a general lack of interest in life.

Overpowering mental distress

In the mildest forms there is simply an overpowering mental distress, preventing the performance of the ordinary duties of life. These symptoms may only appear at certain periods, usually in the winter and spring, the patient returning to his normal state in the other seasons.

Advanced age

With the advent of the depression the patient suddenly assumes the appearance of advanced age. Filled with gloomy thoughts, the society of friends and acquaintances is shunned. Ordinary duties are neglected and the time is passed in useless brooding. Capable of intelligent conversation when questioned, he describes his gloomy thoughts, doubts, his restless nights, but reveals no signs of delusions and shows no suicidal tendencies. He is simply engulphed in mental darkness and everything is black and distorted.

Nights of horror

In severer forms, especially if there have been antecedent attacks, thought is retarded, all interest in family and surroundings is lost and the patient, for days, may devote himself only to self-examination and may become filled with vague delusions. The nights are filled with horror from the overpowering presence of his morbid thoughts, uncontrolled by the correcting influence of daylight and family surroundings. In these cases suicidal impulses are liable to arise with disastrous results unless care is taken.

DIAGNOSIS

The certain diagnosis of recurrent mania or melancholia can only be made after a recurrence has taken place.

TREATMENT

The treatment is the same as in other forms of mania and melancholia.

ALTERNATING INSANITY

This form is characterized by alternating attacks of mania and melancholia, separated from each other by sane intervals.

CIRCULAR INSANITY

This form of insanity is characterized by an alternation of states of melancholia and mania.

Periodicity

The duration of each stadium varies in individual cases from a few days to years. In certain fully developed cases the periodicity may be so well established that the physician can foretell the number of days in which the patient will remain in each succeeding stage. The majority of cases, however, are not thus perfectly developed and will only present the cardinal factors of the disease, the successive attacks of melancholia and mania.

A large number of these cases, on account of the mildness of the attacks, never come into the

hands of a physician, or if they do it is usually during the stage of depression.

Inheritance

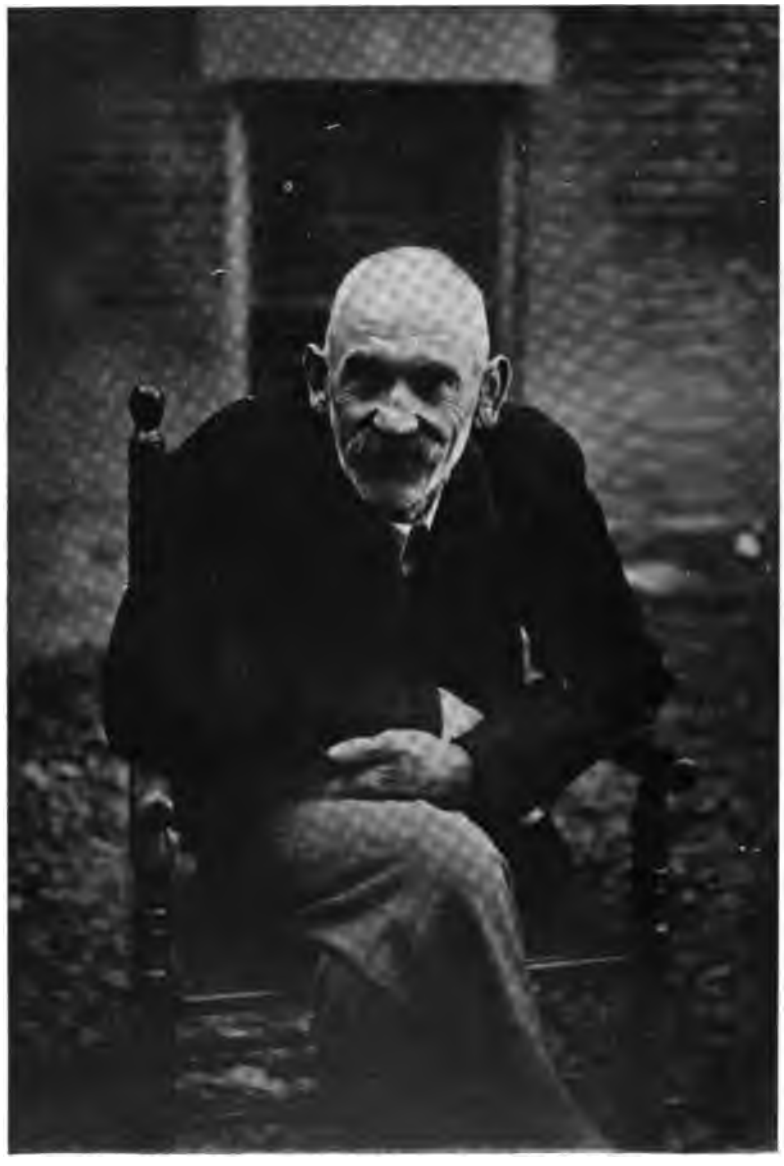
Causes effective in its production are direct inheritance or at least an unstable nervous system. In many cases no competent cause can be traced. In persons with a marked insane diathesis any strain incident to daily life may act as an exciting cause.

The disease is more often found in women than in men. While it may appear at any time of life, the third or fourth decades are most vulnerable to its attacks.

It is usually difficult to state the exact period at which circular insanity begins. From childhood the patient may have been subject to mild alternating fits of sadness and gaiety and the increase in their severity been so gradual that the exact time when the borderland of sanity was crossed may not have been observed. The milder forms resemble the simple manias and melancholia in their mental symptoms. The somatic symptoms are somewhat peculiar and striking. In the melancholic stage the patient has an aged appearance and seems incapable of mental or physical exertion. He frequently goes to bed and refuses to get up, and with difficulty is urged to take food or attend to the demands of nature. Without delusions he simply seems deprived of all physical or mental energy. Sleep is disturb-

Aged appearance

Energy lost



MANIC TYPE MANIC DEPRESSIVE INSANITY

ed, the tongue is coated, the appetite gone, the skin dirty, the pulse weak, the urine scanty and high colored and bodily weight daily decreases.

Suddenly after a night's sleep the patient arises from bed and pronounces himself well. The expression of the face is bright and joyous, the eyes sparkle and he seems to again have regained his youth. All his movements are active. Work is eagerly recommenced and is rapidly and correctly executed. The pulse is full and bounding, the appetite and sleep return, the skin resumes its rosy tint and the lost weight is rapidly regained and the kidneys become normally active.

Sudden change to hyperactivity

New plans and projects are entered upon and pushed to completion. Body and mind are driven to their uttermost capacity. This mental hyperactivity continues for a time, until worn out by this excessive overstrain a reaction sets in and the melancholic stage is begun anew.

Severer types may occur where deep depression or even stupor may alternate with maniacal frenzy, necessitating incarceration in an institution.

IRREGULAR FORMS

Other combinations occur, such as melancholia, lucidity, mania, lucidity, melancholia, or periodic circular and atypical forms may combine themselves in a complex manner. A patient

prone to circular insanity may become a periodic maniac for a time or periodical maniacal attacks may change to depressive attacks.

DIAGNOSIS

When there has been a previous attack the diagnosis is usually easy. The chief diagnostic symptoms are the psychic paralysis connected with the special symptoms of exaltation of the mental automatism, lack of persistent intellectual enfeeblement and frequent recurrence of the attacks with complete mental restoration after each.

General Paresis

Involutional melancholia

Dementia præcox

It is differentiated from *general paresis* by its lack of the persistent intellectual enfeeblement and the physical signs pathognomonic of that disease. From *involutional melancholia* by the milder character and shorter duration of its moral pain. From the *depression of dementia præcox* by its greater amount of clouding of consciousness, psychomotor retardation, difficulty of thought, sparsity of ideas and slowness of application of attention.

PROGNOSIS

The prognosis as to permanent recovery is bad, as the individual is liable to recurrent attacks through life. For recovery from individual attacks good, except, according to Kraepelin, in

about "five per cent. of cases which from the onset pass directly from one attack into another."

Deterioration rare

Mental deterioration rarely occurs as the result of the disease. A few cases have manic attacks which last for years, known as chronic mania, but these show little evidence of dementia. A certain number of depressive cases may suffer from attacks, which last for years, without marked evidence of mental deterioration. Between the attacks patients may be able to resume their accustomed duties and appear perfectly well.

TREATMENT

As the underlying cause of the disease lies in the individual constitution there is little chance of entirely eradicating it by treatment. The individual attacks can be greatly modified and shortened. Between the attacks the life should be so moderated that the individual may be subjected to as little mental strain as possible. During the attack patients are usually better kept in bed and subjected to forced feeding of as much nutritious food as they can digest usually in a liquid form.

The remedies and their indications have been given under the individual types.

CHAPTER XIV

PARANOIA

Dangerous

The word paranoia (from tapa close to and vous understanding) indicates a mental disorder which, although rare, has become of great importance to the medical and legal profession from the dangerous character of the individuals affected.

Puzzle to Juries and Judges

The paranoiac, aside from his particular delusions, may not only appear perfectly sane, but unusually gifted mentally, hence when he comes within the pale of the law he may prove the deepest of puzzles to both juries and judges.

Paranoia has been defined as "a form of mental disease characterized by logical or systematized delusions of persecution and self-exaltation without excitement of emotion or idea, or impairment of memory." (Gray's Nervous and Mental Diseases, p. 632.)

Typical form

A great number of varieties have been described by different writers. The typical form of paranoia is termed *chronic progressive paranoia*, which we will consider in detail. This form is divided into four stages, *prodromal, persecutory, expansive* and *pseudo-demented*.

We shall describe the symptoms of the different stages in the order of their development.

The *prodromal*, the *hypochondriacal* stage, or period of *subjective* analysis, as it has been variously denominated, may have its inception in early childhood. The child is peculiar, morbidly bashful, shuns the companionship of other children and is inclined to solitude. Puberty, with its new-born flood of sensations, typical of this period, intensifies these morbid proclivities. The patient begins to notice his own peculiarities and to recognize the singularity of many of his sensations, which are more or less neurasthenic in character, paræsthesias and pains in various parts of the body, ringing in the ears, sparks before the eyes and the like. These sensations give a hypochondriacal coloring to his thoughts. Soon is added a consciousness of difficulty in the concentration and control of his thoughts. He becomes extremely introspective and the more he studies his peculiar sensations and the phenomena of uncontrollability of his thoughts, the more inclined is he to seek for some cause of his morbidity. At first, like an ordinary hypochondriac, he studies himself, to find a solution of the problem; failing here, he extends his investigations to his environment, seeking there a reason for his strange feelings, uneasiness and morbid thoughts; soon, entirely self-concentrated, he becomes incapable of any mental or physical employment. All his companions appear strange

Inception in childhood

Physical sensations

Introspective

PARANOIAC WITH MARKED DELUSIONS OF PERSECUTION

Suspicions

and he grows suspicious and distrustful of everything and everybody. He imagines that he is ridiculed, slighted and slandered and grows more and more gloomy, solitary and absorbed. Everything in his past life is studied in the light of his present general distrust. His physical symptoms becoming more marked, he soon develops illusions and hallucinations of feeling, smell and taste. He is disturbed by unusual noises and sounds, which rapidly change into fixed hallucinations of hearing.

Persecutory delusions

Now the second or *persecutory period of paranoia* is developed, the period of delusional explanation of his troubles. Multitudes of fixed persecutory delusions fill his mind. He lives in an atmosphere of suspicion, everything around him has a covert meaning. People watch him on the street and in public conveyances. Attempts are made by unknown enemies to poison him or kill him by electricity. Wherever he goes he is pursued by the voices, shocks and poisons, hence he comes to believe that it must be the work of some great conspiracy. The Masons, the Jesuits, the Catholics, anarchists and the police are all in league against him. As time passes these delusions become more and more fixed. "This system of persecutory ideas is built up in the most elaborate way and the more educated the individual, suffering from paranoia, the more wonderful

the organization and adjustment of the various parts of the delusional system." (Peterson.) Continually tormented, by his delusions, he seeks protection from the police, or the Governor of the State, or the President of the United States or different judicial authorities. Failing to receive any satisfaction from his complaints, he often takes the law into his own hands and wreaks vengeance upon his imaginary enemies. These frequent homicidal attempts, the legitimate outcome of his delusions, render the seclusion of the paranoiac an absolute necessity for the public safety.

Homicidal

The third stage, or *expansive* period, is a logical outcome of the two previous. In his attempts to explain why so many enemies have sprung up against him the paranoiac concludes that he must be some great person. Suddenly he discovers that he is in reality Christ or Mahomet, or some great inventor, or has been set aside to establish some social reform, or is the beloved of some lady of superior station. Upon these delusions some writers have based their divisions of the disease into *paranoia religiosa*, *paranoia inventoria*, *paranoia reformatoria* and *paranoia erotica*. Yet filled and guided as these paranoiacs are, by every variety of delusion, they may possess remarkable judgment, reasoning power and memory, and may be able to deceive the laity and many physicians regarding their insanity.

Delusions of grandeur

Witness stand

They may even take the witness stand to prove their sanity, answer questions with perfect readiness and logical sequence, stand unscathed an analytical cross-examination, stagger Judge and jury and yet in the next breath say something that would evidence a rooted delusion. These patients write coherent, sensible letters and may do creditable literary work; yet underneath all this seeming good judgment and logicality lurk their delusions, fixed and unchangeable, coloring and shaping all their thoughts and actions and rendering them, at all times, a menace to society.

Ethical sense

The loss of ethical sense is a marked characteristic of these cases. They will describe some brutal act, which they have performed, with the utmost equanimity and the most perfect recognition of the nature and quality of the act and its consequences. The following account, given by Dr. Lander Carter Gray, one of his medical examiners, of the notorious paranoiac, Dougherty, is a good illustration of this lack of ethical sense and shows the mental condition of a typical paranoiac. I give it in Dr. Gray's own words:

Dougherty case

"This man, Dougherty, told me, very calmly, that when he had been committed to the Asylum twice and found that he had no redress, he made up his mind that the system of committing people to Asylums was defective; that he sought, for a long time, for the best means of correcting the

evil and that he came, reluctantly, to the conclusion that a revolution, as he expressed it, was the only effective remedy, so that he determined to kill the physicians who committed him, the Judge who had indorsed the commitment, the Commissioner of Lunacy who had approved of it, the officers of the Asylum to which he had been committed the second time, the local Commissioners of Charity in whose charge the Asylum was, and the State Commissioners of Charity, who had visitorial power over all the Asylums of the State. He armed himself with two revolvers, and proceeded to the Flatbush Lunatic Asylum, where he shot a young Assistant physician, Dr. Lloyd, backed out of the Asylum, keeping everyone at bay, with his two revolvers, and proceeded on the horse cars to the Brooklyn Bridge, a distance of some seven miles, to cross over to New York, to go on with his murderous work, but fortunately he was arrested on the bridge at the instance of another physician who had followed him. He said that he was very reluctant to kill Dr. Lloyd, because he knew that the latter was a young man whom his parents had educated at considerable sacrifice, and because he was the only son, but he steeled his heart to the deed by reflecting upon the necessity of the revolution which he was thus to inaugurate. He also said that he had, at first, intended to shoot the cook of the institution, but

that second thought convinced him that people might think that there was an element of spite in this, which would detract from the moral effect of the deed. I remarked, at this point, that this would have been rather a small affair to kill the cook, whereupon he quickly rejoined with a chuckle, 'Oh, if you had eaten the food which that d—d scoundrel cooked, you would have wanted to kill him,' and laughed heartily."

This is an outline of the *typical form of paranoia*, the *chronic progressive*, and only a short description needs to be given of the other forms.

Various divisions have been made by different writers based upon the peculiar delusions developed.

Krafft-Ebing

Krafft-Ebing, whose classification we shall follow, divides the paranoias into two groups, the *early* and *late* forms—*paranoia originaria* and *paranoia tardiva*. These groups are sub-divided into *paranoia simplex* and *paranoia hallucinatoria* with minor varieties of *paranoia persecutoria*, *religiosa*, *erotica* and *superba*. The *litigious* insanity or *querulent* insanity is included under paranoia tardiva.

Hereditary taint

Paranoia originaria, the early form, is very uncommon and resembles the late form. Its symptoms appear before or during the epoch of puberty, some cases having been recorded as commencing in early childhood. Marked hereditary

taint and a neuropathic temperament are always revealed in the history. These children are given to day-dreams and are prone to outbreaks of passions, jealous of their brothers and sisters, whose treatment by their parents they consider different from their own, they find more pleasure in the company of strangers than in their own home surroundings. Seclusive and given to the perusal of romantic and erotic novels, they decline to join in the amusements of their brothers and sisters. Convinced of the injustice of their home treatment false impressions soon fill their minds. Their parents are only foster parents to whom they have been intrusted. Revolving upon this idea, they soon evolve a romantic family history. They are really of noble birth and are being deprived of their natural rights. Whispered conversations of their parents, or teachers, or some chance expression are regarded as additional proof. Soon their suspicions are accepted as absolute certainties, and their ideas become fixed. Home surroundings become unendurable. Convinced of their own superiority, they imagine that they are treated with especial consideration by persons whom they meet. The papers are filled with covert allusions to their cases and they occupy their days and nights in building up elaborate solutions of the mystery pertaining to their exalted birth and station. As

Childhood

Romantic family history

puberty appears erotic ideas are mingled with their misconception and hallucinations and delusions fill their minds. Lovers of high degree visit them at night. In order to be recognized by their lovers, who are to carry them away as brides, they clothe themselves in fantastic dresses and ornaments, and their conduct becomes ridiculous and nonsensical. Individuals are singled out and showered with affectionate attention to their annoyance and the great mortification of the families and friends of the patients. Efforts by the families and friends of the patient to control this conduct may give rise to delusions of persecution. Imagining that all their desires are frustrated and that proper respect is denied them by their families and friends, they become more and more intolerant of control and their fancied wrongs become intensified and exaggerated. Their future lives are built up of a texture of delusions strengthened by recurring hallucinations and illusions.

Erotic ideas

THE LATE PARANOIA

While the incubation period may date from adolescence the actual invasion of this form may not occur before the thirtieth, fortieth, or even the fiftieth year. With women the pre- or post-climacteric epochs are the most common periods for its development.

Thirtieth to fiftieth year

The simplest and most common type of the disease is characterized by systematized persecutory delusions, without any necessary weakening of the intelligence, although the comprehensive faculty shows implication from their inability to correct the erroneous impressions received.

THE PERSECUTORY PARANOIA

To this form belong most of the examples of the disease. Possessing, by inheritance, an illy-balanced brain these unfortunates exhibit from childhood a peculiar temper and disposition. *Psychic stigmata* Distrustful, suspicious, self-centered, unsocial, melancholic, they pass through adolescence always alert for slights and insults, from those by whom they are surrounded. For years imbued with this mental atmosphere, it may need but some slight physical cause, like an exhausting discharge, or prolonged sleeplessness to crystallize into delusions of persecution the suspicions *Delusions of persecution* which have long occupied their attention. A new world now surrounds them. Friends and acquaintances treat them unkindly and circulate false stories about them. People conversing, on the street, cast unfriendly glances at them. Covert hints are made at them in the newspapers. Preachers allude to them in their sermons. Hemmed in, on all sides, they retire more and more within themselves. Conversation address-

ed to them causes irritation, but if left to themselves they feel insulted. Years may elapse before this persecutory system is completely evolved and the borderland of insanity is passed. Gradually or suddenly, as the result of some strain or exciting cause, the time comes when their falsified impressions become certainties and they come under the complete control of hallucinations, illusions and delusions. Voices tell them that they are in danger from poison, that the Masons are conspiring against them. Spies are on their track, the police are to arrest them for crimes long since committed. Voices fill their ears with vile accusations, mock at them and call them names. Electrical machines are placed in their beds at night to sap their vitality and drive them insane. Needles and knives are thrust into their flesh. Hallucinations of taste and smell are mingled with those of perverted cutaneous origin. Poison is mixed with their food and noxious gases are blown into their rooms at night. Convinced of the dangers by which they and their families are surrounded, they seek protection from the authorities. Getting no relief they fly from place to place for safety. Ever pursued by their persecutors, they at last take the matter into their own hands and then become a menace to society. Often informed by the voices of the names of their tormentors, they may resort to homicide.

Hallucinations

Homicide

Mental powers weaken

In the majority of cases of *paranoia persecutoria,* when the delusional insanity has reached its height, gradual weakening of the mental powers ensues, although years may elapse before the intelligence evinces any palpable defects.

Megalomaniacal ideas

In one-quarter to one-third of the cases, of this type, either suddenly, or by degrees, the persecutory are supplanted by megalomaniacal ideas. The patient now asserts that he is a person of unusual attainments and great possessions, or has been especially chosen of God as his prophet, or is the Saviour of the world. While the grandiose ideas of the paranoiac may rival in absurdity those of the paretic, they lack the changeableness of the latter and remain fixed and settled.

Course slow

The course of *persecutoria paranoia* is exceedingly slow, although progressive. Even fifteen or twenty years may elapse after the development of the delusions and no signs of terminal dementia appear.

The most common of the sub-groups of *persecutoria paranoia* is the *sexual type.*

Sexual organs

In this form all delusions relate to the sexual organs, often produced by neurasthenia, masturbation or actual disease of these organs.

Jealousy

In a paranoic woman jealousy is the common basic symptom. The husband is false and fills the wife's room at night with unseen women

with whom he copulates in her presence. The most innocent actions or conversation with the other sex are falsified. The maltreated wife confides her wrongs to neighbors and friends and the peace and happiness of home is destroyed. With these misconceptions a strange mingling of religious ideas may be blended.

QUERULOUS INSANITY

One of the forms of paranoia of occasional occurrence has been designated by Hitzig *querulent insanity*. (*Querulantenwahn.*)

This psychosis is of gradual onset and usually dates its origin from an actual occurrence, some legal injustice, defeat in court, loss of property, or unjust award of damages in which the patient has been the sufferer. *Legal injustice*

It usually occurs in individuals hereditarily tainted with marked stigmata of degeneration. *Hereditary taint*

Ethically defective, an exaggerated egotism arises, causing misconception of the rights of others and an overweening jealousy of their own, an infringement of which is violently resisted. Irritable, obstinate, self-willed, they are prone to frequent conflicts with others.

Usually intellectually below the average, even when some acuteness of judgment is apparent, the memory good and thought coherent, still there is a lack of mental balance manifest and *Lack of mental balance*

facts appear in a distorted light. Ever dwelling upon the wrongs they have suffered, they continually attempt to secure justice through the courts. Failing to win, they often accuse their lawyers of treachery and devote themselves to the study of the law and henceforth conduct their own cases, carrying them from one court to another, devoting their whole time and money to this object. Refusing to abide by the final decision they write to Judges, legislators or the President of the United States. Answers to these letters only increase the embitterment. Insults and threats are poured upon the officers of the law, until steps are taken for their commitment to some institution, where they pose as martyrs and dupes of the law.

Mental deterioration

These cases are prone, after a prolonged course, to show greater mental deterioration than other varieties of paranoia. Incoherency and limitation of the content of speech appears with increased peevishness, irritability and in some cases stupidity.

EXPANSIVE PARANOIA

This form is much less common than the persecutory. Based upon the character of the delusions, it has been subdivided by Kraff-Ebing into (1) *Inventive* or *reformative paranoia*, (2) *Religious paranoia*, (3) *Erotic paranoia*.

INVENTIVE PARANOIA

These patients are always tainted and usually imperfectly developed mentally. The chief mental defect is an overweening self-importance, which forms a basis for all their delusions.

Tainted

The period of incubation is long, in which the foundation of the disease is laid by constant brooding over future discoveries and inventions which they are to bring forth. Ever upon the border line of paranoia, some extra physical strain or sudden excitement will deprive them of their remaining reason and they announce themselves as discoverers of new religions, political reformers and saviours of mankind. Confined in institutions, inspired by their hallucinations and delusions, they continue to elaborate their ideas.

Incubation long

After years their delusions become fainter and a greater or lesser degree of dementia succeeds.

Dementia

RELIGIOUS PARANOIA

The subjects of this form of paranoia are usually weakminded or of one-sided mental development.

Weak minded women

It occurs most frequently in women given to fancies, who from childhood have been excessively pious and easily influenced by religious excitement.

The stage of incubation may last for months

or years. Weakened by acute disease, sexual excess or prolonged penances, any exciting cause, like disappointment in love, misfortune or unusual excitement, may hasten its development. Frequent precursors are hysteria, chlorosis and menstrual disorders.

Hallucinations, delusions

In the acute stage, hallucinations and delusions predominate. At first hallucinations of sight appear, the heavens are opened, Christ, the Virgin and Angels are seen. Voices then announce to them that they are the Sons of God or the Mother of Christ. At first these messages are passively received. Later a stage of activity succeeds in which, in their attempts to carry out their missions, they come into conflict with the authorities.

If unopposed few of these patients become dangerous unless some voice directs them to put some sinful person out of the world. Opposition to their views immediately provokes violence. At large they are unbearable and are soon committed to some institution.

Mental weakness gradually ensues, the delusions still persisting, but marked dementia does not occur.

EROTIC PARANOIA

Erotic paranoia is one of the rarest forms.

In these patients their delusions consist in an

Imaginary love for some person of a higher station

imaginary love which some person of the opposite sex entertains for them. The object is usually some one of a higher station and entirely unknown. As a result, they send letters, flowers, make proposals of marriage, until their conduct becomes a veritable persecution and they fall into the hands of the law and are incarcerated in some institution.

PATHOLOGY

The pathology of paranoia is thus far unknown.

PROGNOSIS

The prognosis as regards recovery is absolutely unfavorable, remissions and intermissions are not uncommon and life may be prolonged to an advanced age.

TREATMENT

Dangerous

The dangerous character of these patients renders incarceration in an institution imperative.

The remedies must be chosen according to the symptoms, temporary alleviation being all that can be expected from any medication.

CHAPTER XV

EPILEPTIC INSANITY

Epileptic Insanity includes all mental derangements directly connected with the Epileptic neurosis. It therefore embraces a great variety of clinical symptoms.

While Epilepsy may for years exist without producing any manifest mental disturbance, exceptional persons even attaining a high degree of mental supremacy, yet in a large proportion of cases marked mental deterioration is the result. This mental weakening may vary from a slight dulling of the mind accompanied by impairment of memory, with abnormal irritability to positive insanity, with suicidal or homicidal tendencies, or dementia may result. The degree of mental impairment depends largely upon the frequency of the epileptic attacks. When the epileptic fits occur at short intervals, for years there is always a tendency to weaken the intellect, even where there is no actual insanity. The finer emotions and sensibilities are dulled, the memory becomes faulty, self-control is lessened and the general character is changed. While, in the intervals, the patients may be able to engage in ordinary occupations they lack initiative, self-control is

Mental deterioration

Frequency of attacks

lessened and their horizon is contracted. If only a few fits occur, during a life time, at long intervals, there may be no mental impairment, except the unconsciousness at the time and the transient confusion after the convulsion. When epileptic insanity occurs it is usually after the patient has suffered for years from convulsions. The more severe and the more frequent the fits, the greater is the liability of insanity. In exceptional instances patients may suffer severely and frequently from fits, for years, with only a slight impairment of the intellect, while others may be plunged into furious mania soon after their first convulsion.

A proper understanding of Epileptic Insanity demands a consideration of the mental state of the patient—(1) preceding an attack, (2) the essential characteristics of the epileptic seizures, (3) the mental condition subsequent to the reinstatement of consciousness, (4) the mental state prevailing in the interval between the convulsions. We shall, therefore, consider the subject under the five headings of (1) the *preparoxysmal stage*, (2) a *premonitory stage*, (3) the *paroxysmal stage*, (4) a *post-paroxysmal stage*, (5) the *inter-paroxysmal period*.

(1) THE PREPAROXYSMAL STAGE

An epileptic seizure is usually heralded by certain marked and easily recognized symptoms

CATATONIC TENSION CASES OF EPILEPTIC INSANITY

These may prevail for several days or only a few hours before the attack. These premonitory signs, while varying in different individuals, are so characteristic that physicians and nurses, accustomed to deal with epileptics, can usually accurately foretell the approach of a seizure. The character undergoes a marked change. There is increased irritability and unreasonableness. Patients ordinarily quiet and peaceable may become quarrelsome and pugilistic. Marked gloom and despondency may prevail. Hypochondriacal notions come markedly into the foreground. An uncontrollable restlessness and discontent may seize the patient, preventing concentration of the mind upon any mental or physical work. Sleep fails and meals are disregarded. Some patients are tortured and terrorized by morbid fears; others, in a state of joyous elation, bombastically boast of their great mental and physical powers, or the ideas may be confused, the power of attention diminished and the memory weakened. Delusions of suspicion may also appear, impelling the victim to acts of violence or even homicidal attempts.

Character

(2) PREMONITORY STAGE

This is not in reality a stage, but the beginning of a paroxysm. At this period appear the so-called warnings or auræ. A great variety of

auræ have been recognized. We may have auræ of the special senses, of the visceral or organic sensations and intellectual or psychical auræ.

Visual and auditory auræ

Visual auræ are numerous and varied, they may appear as sparks or bright colors before the eyes, or the patients may suddenly seem to be thrust into utter darkness or plunged into a sea of light, or a complete picture may be flashed before the eyes. The auditory warnings, though less frequent, may be simple or elaborate in form. Hissing, singing, whistling, explosive noises, or vocal utterance may be heard, or a loss of hearing a strange unearthly stillness may precede the loss of consciousness. Gustatory and olfactory auræ are the least frequent, but when present consist of peculiar tastes and smells. In vasomotor auræ there may be a mottling of the skin, the hands may become cold and purple, the cutaneous veins may look less full than normally and a general feeling of chilliness may pervade the patient, attended by chattering of the teeth.

Visceral and organic auræ

The visceral and organic auræ are the most prevalent. These consist of a choking at the throat or a feeling of weight or pain in the epigastrium, or an opening and shutting of the head, and continue until consciousness is lost. The psychic auræ are numerous and varied. Terror, shuddering, depression, gaiety or rage may suddenly seize the victim. Reminiscences of bygone

days may suddenly rush into the mind or portions of their past lives pass like a drama before them. Whatever the form of the auræ the patients learn to recognize them as forewarnings of an attack and are thus often able to prepare for them.

(3) THE PAROXYSMAL STAGE

The epileptic paroxysm may appear in the form of the Grand Mal or complete attack, the Petit Mal or incomplete attack, or as the Psychic Equivalents of an Epileptic attack.

The Grand Mal presents three distinct periods —(1) one of *tonic convulsions*, (2) one of *clonic convulsions* and (3) a *period of stupor*.

The attack may be preceded by an aura or the patient, without warning, may stagger to a seat or suddenly fall, often receiving severe injuries. There may be the "epileptic cry," consisting of a sudden piercing scream or a succession of shrieks, a plaintive wail, a long loud groan or a mere gurgling in the throat. The face becomes deadly pale, the pupils are widely dilated and complete unconsciousness ensues. A tonic spasm first appears, usually more pronounced on one side of the body than the other, the head and eyes deviating to the side toward which the body tends to roll. The face becomes livid and injected, the swollen and congested tongue is frequently forci-

Physical symptoms

bly protruded between the teeth. The chest is fixed, respiration is arrested, the veins of the neck become swollen and rigid and marked cyanosis appears. The trunk is usually rigid and straight. Flexion and extension may be combined in the different limbs, or flexion may prevail throughout.

At this stage a spasm of the abdominal muscles expels the contents of the bladder and at times of the rectum. The *tonic* stage is shortly followed by the *clonic*. The muscles now relax and contract. The face is distorted by horrid grimaces, the eyes jerk in their sockets, there is grinding of the teeth, often causing laceration of the cheeks and tongue. The air is forced noisily in and out of the chest. Froth foams from the mouth, frequently tinged with blood from the lacerated tongue. The limbs and head beat upon the ground. The respiration impeded by the clonic spasm of the chest is inefficient. Marked asphyxia and cyanosis persists, the cardiac movements are precipitate, the arterial tension intense. The *clonic* stage lasts from one to five minutes, terminating in full relaxation, followed by the period of stertor. The patient now lies inert, with sterterous breathing, in a state of profound unconsciousness. This state varies in duration from a few minutes to hours. Gradually the breathing becomes natural, sensibility

and motor power are regained and, with the exception of a more or less confused dazed feeling, the patient's previous condition is completely re-established.

In the Petit Mal, while a slight contraction of the face or eyes, tongue and neck may be noticed, the distinguishing characteristic is a loss of consciousness which is momentary only. This unconscious period may be so short as to escape the notice of the careless observer. The conversation may show only the slightest break, the patient resuming it where he broke off and continuing as if nothing had happened. We have seen a patient playing whist have an attack between the time he had played and his next turn and make his play correctly, the attack being so slight that those with whom he was playing did not notice anything unusual. The patient does not fall and, if walking, may make no change in his gait. Still, brief and slight as are these attacks, they result in the most rapid intellectual impairment.

Momentary loss of consciousness

Either the Grand or Petit Mal may occur at night, constituting the clinical variety known as *Nocturnal Epilepsy*, and for years be undiscovered, if the patient sleeps alone. Often the discovery is accidental. The sufferer may even pass through life ignorant of the secret foe who is constantly sapping his mentality. We had one

Nocturnal

patient who was a sufferer from Nocturnal Epilepsy for more than twenty years and died without any suspicion of its existence. Often these attacks cause little discomfort to the patient. A slight headache in the morning, after the seizure, with some confusion and a slight weakening of the memory and a general tired lame feeling, may be all the apparent symptoms. In some cases the tongue and lips will be sore and there may be blood upon the pillow or occasionally an involuntary evacuation of urine in the bed may occur, but unless some one sleeps near the patient, and sees and hears him during the attack, neither the patient nor the family may discover the true nature of the malady.

Blood on pillow

Enuresis

Instead of the ordinary attacks, in alternation with them, or preceding or immediately following the major convulsions, we may have the so-called Psychic Equivalents. These Psychic Equivalents usually come on suddenly without warning. All of the attacks somewhat resemble each other. The patient is not completely unconscious, but the consciousness is disturbed, there is a dream-like altered consciousness in which apparently automatic, mechanical and conscious acts seem to alternate with strange purposeless ones. In this stage the patients may walk about, run away, make indecent exposures of themselves, commence complicated and appa-

Psychic Equivalents

rently premeditated movements and yet afterwards have no knowledge or remembrance of anything which they have done. Gray mentions one patient of his, a lad of fourteen, who would wander for days about the lower quarters of New York City, sometimes earning wages in some light occupation, without arousing the faintest suspicion in those about him until, some fine morning, he would return to his normal condition and then quietly wend his way home. Of this character are many of the sudden disappearances of people which are daily chronicled in the public press. While in this state many a crime has been committed, utterly motiveless, and the culprit, when restored to himself, has been as unconscious of the whole affair as if he had not been involved therein.

Gray

POST-PAROXYSMAL PERIOD

Whatever the form of the seizure mental disturbance is liable to follow the epileptic attack. Transient epileptic mania is the most common result of the paroxysm, although the mental excitement may extend over many days without any further epileptic seizures intervening. The epileptic maniac exhibits certain highly characteristic traits. The excitement is intense. Driven by a wild uncalculating fury, in his frenzy he may brutally attack, without cause, anyone with

Mania

whom he comes in contact. Attendants, physicians and friends are all alike subjects of his murderous assaults. With vacantly staring eyes, pale ghastly face, expressionless, or vividly betraying the wildest passions, he is a perfect representation of a demon incarnate. Utterly oblivious of his surroundings, deaf to entreaties or threats, he often makes the most desperate attempts at suicide or homicide. Impelled by this uncontrollable fury, the epileptic maniac seems less a human being than a machine driven by some powerful disarranged motor, rendering him the most dangerous of lunatics.

Demon incarnate

Sexual excitement

In other cases an overpowering sexual excitement, with frequent frantic outbursts of satyriasis, renders seclusion necessary to prevent indecent assaults upon those with whom they are associated.

Not all cases, however, are wild and excited; some are simply garrulous, incoherent, absurd and foolish in their actions and appearance. Many are exceedingly religious in their pretensions, spending much time in reading the Bible and in prayer, but if disturbed in their devotions may pour forth a volley of oaths and furiously assault the offender.

In some cases a delusional state precedes the convulsion and the delusions continue after the fit, prompting to deeds of violence. Delusions

Delusions

which, before the fit, may have been held in abeyance, during the automatic stage, succeeding the convulsion, may entirely control the patient and culminate in some terrible crime.

Automatism

The strangest and most perilous feature of Epileptic mental disturbance is the Epileptic Automatism, which is a marked feature in some epileptics after their convulsions. In this state they may not only perform the most incongruous acts, but may carefully plan acts of violence of which, after their complete restoration to consciousness, they have no remembrance. Dr. Clouston tells of one epileptic who, in conjunction with another patient, put a stone in the toe of his stocking and tied a string about it and then slipped it up his sleeve, intending to use it, as a weapon of assault, upon the Doctor and a head attendant, whenever opportunity offered, and yet when recovered from his epileptic condition he had no recollection of the act. This Epileptic automatism is of vital importance from a medico-legal standpoint, as many of the most atrocious crimes of epileptics have been committed when they were in this condition. Dr. Orange cites a case where "the Mother who, while cutting bread for her family, having her baby on her arm, became momentarily unconscious. On return of consciousness she proceeded, in an automatic way, to use the knife, not

Crimes

upon the loaf, but upon her child, whose arm she amputated." This automatic state may continue for hours or even days, and during this time the patient may make long journeys or perform his regular routine work without attracting the attention of persons he meets, and when he is restored to his normal mental condition have no remembrance of anything which has occurred subsequent to his convulsion.

Hysteroid Attacks

Violent Hysteroid Attacks are also not infrequent accompaniments of an epileptic convulsior in the insane. Those most subject to these attacks are young women, boys and girls and occasionally young men under thirty-five years of age.

Epileptic Status

In certain cases the convulsions rapidly succeed each other, the consciousness is not restored between the fits and we have what has been termed the Epileptic Status. In this state the breathing and pulse become quickened, the temperature rises to 105 degrees or 107 degrees F., the coma and stertor deepens and death is liable to result. The convulsions now become almost continuous, but feebler. The head and eyes are turned slightly to one side, there are slight clonic movements of the limbs or there may be merely slight convulsive twitchings of the mouth. There is insensitiveness of the conjunctivæ, the pupils are widely dilated and the face and body are cov-

ered with cold sweat. The temperature may vary upon the two sides of the body, being highest, by a degree or more, upon the side most convulsed. If recovery ensues the temperature falls most rapidly upon this side until the balance is re-established, after which the decline is equable and continuous on both sides. Many epileptics are occasionally subject to these outbursts of convulsions which pass into the Status.

When death occurs it is due to collapse, meningitis or exhaustion, with hypostatic congestion of the lungs.

INTERPAROXYSMAL STATE

The mental condition of epileptics varies greatly in the interparoxysmal state. In some the mind is practically normal and they are able to pursue any employment for which they are fitted. In others, while the intellect is vigorous, the emotions are at fault. These patients are irritable, impulsive, easily angered, self-control is lacking, and upon the slightest provocation they become involved in broils and fights. Oddities and eccentricities often appear and the moral character may appear lacking in development. A large class are characterized by marked intellectual perversion. Possessed by delusions, impulsive and lacking in self-control, they are ever prone to acts of violence, rendering

them extremely dangerous to any community in which they may be located. Lastly we find the cases far advanced in dementia. None of the insane sink to a lower level than the epileptic dement. With the memory a blank, the emotional and intellectual faculties dead, often incapable of caring for themselves even in the slightest detail, they lead a purely animal existence. Governed entirely by the lowest animal instincts and passions, they become the most repulsive and obnoxious of human creatures.

Epileptic dement

Certain physical and mental characteristics are common to the whole class of epileptics. Epileptics as a rule are undersized and constitutionally weak. Some of the physical physiological or mental signs of degeneration are always present. According to Ferè, the physical stigmata are "short stature, cranial asymmetry, short parietal or frontal arc and triangular skull; in women high prominent forehead; bad teeth badly placed, high palatal arch; facial asymmetry; prominence of occiput; differences in color, size, position and shape of pupils; astigmatism; badly shaped and badly placed ears; misplaced crown of scalp; low vital capacity; small genitals, atrophic uterus, greater development of the left side; long fingers. Sometimes from a premature ossification of sutures we find also the steeple-shaped skull or the obliquely deformed skull. Physiological stig-

Physical stigmata

Physiological stigmata

mata appear in the form of lessened muscular strength, habit choreas, imperfect eyes, with excessive amount of astigmatism and functional muscular weakness. The vital capacity is diminished, the digestion weak and slow and sexual atrophy or irritability is likely to be present. The excretion of phosphoric acid is below normal as compared with urea."

The whole life and surroundings of the Epileptic tend to devlop the most disagreeable mental characteristics. Shut out by his malady from schools, church, amusements, refused employment, he becomes a social outcast. Ever in dread of an attack of his direful malady, his whole mind becomes self-centered. Every symptom receives the minutest attention and is thereby exaggerated. Hypochondriacal, melancholic, irritable, distrustful, morose, deceitful, dull, apathetic, impulsive, lacking in self-control, his mind is a composite picture of the worst mental characteristics. A burden to his friends, an object of general commiseration, the mental traits of the Epileptic are the natural fruitage of the circumscribed life to which he has been condemned by his dread malady.

Composit picture of worst mental characteristics

MEDICO-LEGAL RELATIONSHIPS

No other form of Mental Disease is as often brought to the notice of Medico-legal experts and

GROUP OF DEMENTED EPILEPTICS.

Courts of Justice as Epileptic Insanity. One reason for this is the frequency of its occurrence among criminals. Numbering among its most frequent and potent causes intemperance and moral and physical degradation, the inheritance of many of the criminal class, it is natural that many criminals should be numbered among its victims. Another reason is that the insanity of the Epileptic, degrading and brutalizing in its effect upon the victim, is liable to be characterized by impulsive acts and in the post-epileptic automatism finds expression in criminal acts, of which the perpetrator is, at the time, entirely unconscious and afterwards retains no remembrance.

Criminals

In considering the responsibility of the epileptic it is necessary to consider, in its entirety, each individual case, as the mental damage produced by the disease varies so greatly in different cases. Every variety of crime has been traced to the Epileptic and has been excused or punished, according to the views entertained by the Judges regarding the disease. The condition of the individual before and after the fits and in the interval between the convulsions must be considered. The frequency of the fits and the proximity of the criminal act to a convulsion is also of the highest importance in determining the mentality of the individual when the act was committed. In judging the innocence or crim-

Responsibility

inality of any act perpetrated after an epileptic convulsion it is necessary to decide whether it was the outcome, 1st, *of genuine automatism;* 2d, *a motiveless uncontrollable impulse;* 3d, *the blind frenzy of Epileptic Mania;* 4th, *was it instigated and prompted by insane delusions?*

MALINGERING

The plea of Epileptic insanity has so often been established as a defense for crimes committed by Epileptics, that the disease is not infrequently feigned by criminals in the hope of thus escaping punishment. Nor is it always an easy matter to detect the impostor. From their frequent association with Epileptics, criminals often become adepts in feigning the disease. While the characteristics of the convulsion, many of which cannot be assumed, usually lead to a speedy detection of fraud, the epileptic mental conditions are much more successfully counterfeited. The fact that epileptics are prone to shamming adds also to the difficulty of the problem. To establish with certainty the truth may require that the suspect be kept for some time under skilled observation.

PROGNOSIS

The prognosis of Epileptic insanity is bad. Whatever the form of the disease, its victims seldom make a permanent recovery.

TREATMENT

The dangerous character of all insane epileptics renders their treatment at home inadvisable. They should at once be committed to some institution and kept there for life or until complete restoration occurs. The treatment, in addition to meeting the peculiar mental symptoms of each individual case, should be that applicable to the primary disease. Careful search should be made in each case for the cause of the disease. If a tumor or depressed bone appears responsible this should be immediately removed. Every reflex irritation, whether arising from astigmatism, defect in the eye muscles, a tight hood of the clitoris, a phimosis, or some orificial trouble, should be removed. The diet should be rigidly regulated, not only as regards the character of the food, but also as to the time of administration and the quantity taken. While on account of individual idiosyncrasies it is impossible to prescribe an exact diet, for each epileptic, in all cases animal food should be restricted, vegetables, eggs, milk and bread being the chief dependence. All alcoholic drinks should be strictly prohibited.

Institutional treatment

Reflex irritations

Diet

In the medical treatment, in addition to Acon., Anacardium, Arsenicum album, Belladonna, Cantharides, Hyoscyamus, Nux vomica, Stra-

monium and Veratrum prescribed in the Maniacal or Melancholic states according to their characteristic indications, previously described under Manic-Depressive Insanity, remedies especially adapted to the epileptic symptoms will be required. As the basic disease in most cases has become chronic before the development of insanity, little help aside from the modification of the convulsions can be expected. The remedies most frequently of use, in this connection, are Argent nit., Artemisia vulgaris, Bufo, Calcarea carbonica, Cedron, Cicuta vir., Cuprum metallicum, Lachesis, Œnanthe crocata, Opium, Plumbum, Silica and Sulphur, given according to the following indications:

ARGENTUM NIT

Pupils Dilatation of pupils, for hours or days, before the attack. After the attack great restlessness, with trembling of the head and hands or violent delirium.

Especially indicated in chronic cases caused by fright or where the convulsions occur during menstruation and at night, and when the disease has produced Melancholia, loss of memory and general marked mental deterioration.

ARTEMISIA VULGARIS

Moroseness, excitability and irritability the day before the attacks, which are followed by a

deep sleep and later offensive perspiration, smelling like garlic. Repeated attacks after a long interval. Left pupil dilated, mouth drawn to left side, numb, convulsions mostly in morning at intervals of two or four months. Frequent nocturnal paroxysms brought on by suffering, great grief; after fright, after cooling off while overheated, Epileptic vertigo, petit mal, in the morning after, heaviness in head, tongue bitten, increased urination. Suppressed, irregular, deficient menstruation with epileptic convulsions, fits every five weeks.

Repeated attacks after long intervals

BUFO

Epilepsy caused by onanism or sexual excess. Fits occurring during coition, after fright, during sleep or aggravated by menstruation. Aura starts from solar plexus or sexual organs or runs from uterus to stomach. Before the attack there is marked irritability for days, incoherent talking and a tendency to hysterical laughing and crying. Attacks may occur in sleep and be followed by severe pain and pressure in top of head and profuse sweating of face. If awake before the attack a sensation of numbness is experienced, the head is drawn to the right or left, then backward, a twitching commences in the muscles of the face and then extends to the whole body, there is grinding of the teeth, foaming at the

Onanism

mouth, the convulsion terminating in a profound sleep.

It is applicable to low-grade epileptic imbeciles.

CALCAREA CARBONICA

Calcarea carbonica is of value more from its ability to correct the peculiar dyscrasia, which underlies the disease, than from any power which it has over any particular form of convulsion.

Constitutional symptoms

It is curative when its characteristic constitutional symptoms are present.

Petit mal

It is especially efficacious in many cases of petit mal, where we have sudden brief attacks of loss of consciousness without convulsions. The causes are fright, suppression of some chronic eruption and excesses in venery.

Auræ

Several varieties of Auræ have been assigned to it, viz., as starting from the solar plexus, going upwards to the brain, or down into the uterus, as if a mouse were running down the arm, etc., but we have been unable to corroborate them in cases which we have helped by the drug.

This remedy must, ordinarily, be exhibited for a considerable length of time to obtain its full curative effect.

CEDRON

Menstrual epilepsy, convulsions appear, with clock-like regularity, the day the menses appear.

CICUTA VIROSA

This remedy is indicated in a typical attack of Grand Mal. The convulsion commences with marked rigidity of the body, opisthotonous or emprosthotonous, the eyes are sensitive to light, fixed and staring, the pupils dilated, the face bluish, there is foam at the mouth, the pulse is slow, the breathing oppressed, a series of shocks and tremors run from the head to the feet, the limbs are violently distorted, the urine is passed involuntarily, there is tympanites, complete unconsciousness and profound prostration follows the fit.

CUPRUM METALLICUM

Nausea and vomiting often precede the attack. The attacks are severe, ushered in with the epileptic cry, the lips and face are blue, the eyeballs rotate, there is frothing at the mouth, violent spasms of the flexor muscles and complete unconsciousness followed by deep sleep. After the attack the patient suffers with severe headache, extreme exhaustion and soreness over the entire body.

Frequently curative

No other remedy in our hands has as often proved curative in Epilepsy. Many authors limit its sphere to cases which occur at night or during menstruation. Our experience has not

verified this limitation. In several cases, apparently hopeless, which had been for years under Allopathic treatment, we have promptly and permanently cured the disease with this drug.

LACHESIS

Aura begins in the heart. Sensation as if something ran up the neck and larynx and stopped the breath, or as if something ran down the spinal cord. Patient upon awaking from sleep is suddenly seized by a convulsion.

Sleep

Useful in chronic cases which complain of great exhaustion in the morning, or after sleep, and who have been addicted to masturbation and sexual excess.

ŒNANTHE CROCATA

This remedy has an enviable reputation in the treatment of epilepsy, but in our hands has proved a disappointment.

Talcott

Dewey (Practical Homœopathic Therapeutics, p. 107) quotes Dr. S. H. Talcott's experience with this drug as follows: "1. The fits decrease in number 40 to 50 per cent. 2. The convulsions are less severe than formerly. 3. There is less maniacal excitement before the fits. 4. Less sleeplessness, stupor and apathy after the fits and the debilitating effects of the attacks are more quickly recovered from. 5. The patients

treated with Œnanthe are less irritable, less suspicious and less fault-finding. 6. The patients are more easily cared for."

OPIUM

Fright

Convulsions produced by fright. Nocturnal epilepsy. Deep stupor, stertorous breathing. Face red, bloated, cyanotic, distorted, cannot be aroused from stupor. Suffocative paroxysms during convulsive state.

PLUMBUM

Vertigo, severe headache, either occipital or frontal, insomnia, disordered vision, heaviness and numbness of the legs before the attack. After the attack prolonged snoring sleep, with slowly returning consciousness and paralysis. Mind weak, morose and sad. The attacks in some cases are coincident with menstruation.

Organic lesions

Clinically Plumbum has won its brightest laurels in chronic cases based upon organic lesions.

SILICA

Exhaustion

Silica, from its deep-seated action, is most curative in chronic cases. It is especially efficacious where there is great exhaustion of the nervous system, characterized by general erethism and hyperæsthesia. The patients are poorly nourished, from their inability to assimilate

food; subject to severe neuralgias, which are aggravated by noise, light and motion, and ameliorated by warmth; constipation; inclined to perspire about the head and feet; take cold easily; are restless and sleepless at night and present the general constitutional symptoms of this drug. The convulsions generally spread from the solar plexus to the brain and are preceded by coldness of the left side, shaking and twisting of the left arm, occur most frequently at night and are aggravated at the time of the new moon.

Overwork, worry

It is especially adapted to patients whose disease has been produced by mental overwork and worry.

SULPHUR

Dyscrasia

Adapted to chronic cases who have been addicted to sexual excesses and in whose systems some dyscrasia lurks, or when its outward symptoms have been suppressed. Before the attack sensation of a mouse running down back and arms, or up the leg to right side of abdomen. After the convulsion deep sleep and intense exhaustion.

CHAPTER XVI

TERMINAL DEMENTIA

Terminal Dementia is the inevitable bourne of all insanities that do not end in recovery or death. The sufferers from this disease form two-thirds of all the cases confined in institutions for the insane.

Mental wrecks

Under Terminal Dementia are grouped a great variety of mental wrecks, the mental enfeeblement ranging from a slight loss of memory with an almost imperceptible diminution of the normal mental acumen to complete animalism. The degree of mental wreckage depends upon the severity of the mental storm and the original power of resistance of the brain attacked.

Mania

When Mania, Melancholia, or Confusional insanity has existed for a long time we find that a state of mental enfeeblement ensues. This condition is much more liable to result from Mania than Melancholia. The abnormal brain action, resulting from the primary disease, interfering with nutrition, injuriously affects the cerebral structure, the capillaries, lymphatics and even the brain coverings—the pia mater, the large vessels, the epithelium, the cerebrospinal fluid, the arachnoid, the dura mater and the calvarium. When

this morbid action has passed over or exhausted itself, we often find that the neurons have been so damaged that they become incapable of performing their normal functions. Incapacitated as vehicles of normal mentalization, their nutritive, receptive, constructive and productive power being impaired, a state of mental weakening or dementia results.

Neurons

The resulting damage may be simply evidenced in a slight impairment of judgment and will power. Their original force of character and mental vigor being lost, the patients become physically and mentally indolent. The moral and æsthetic feelings are blunted, the physiognomy loses its highest expression and the individual manifests a certain childish appearance. These patients laugh boisterously over nothing, weep about trifles and become easily enraged without cause. There is an entire lack of origination and remnants of vague hallucinations and delusions may remain, shadows of the primary insanity. These cases are bidable and, although incapable of any originality, may carry out the plans of others if not too complicated. Although irritable and excitable, they are not dangerous or intractable and may be fairly useful members of society. This is one end of the scale of degeneration, but at the other the mental powers are almost obliterated and the accomplishments of

Signs of mental weakness

the past are completely blotted out. The present arouses no interest, depraved and loathsome, in habits, the patients lead a mere vegetative life.

Between these two extremes, of slight mental enfeeblement and absolute loss of mentality, we find every shade of transition from strength to helplessness.

Physiognomy

The change in the intellectual life is vividly portrayed in the physiognomy of the demient. There is an entire lack of harmony in the action of the facial muscles, at times one side showing activity while the other remains passive. This lack of innervation is especially observable about the muscles at the angles of the eyes and mouth, producing a passive leer. This loss of tension in the orbicularis also permits the constant dribbling of saliva, rendering the patients very difficult to keep clean.

Faces

The faces of these patients, deprived of all expression, save some single, automatic fatuitous smile, angry frown, or furtive look, may retain scarcely a trace or vestige of their former comeliness.

Trophic disturbances are not uncommon. Early signs of senility may appear in premature grayness of the hair, diminution of the subcutaneous fat, with wrinkling and dryness of the skin. Others take on flesh rapidly and become excessively obese.

Taste

There may be a complete loss of the sense of taste, anything being swallowed which the patient can get hold of, even the most disgusting substances.

They may delight in collecting strings, stones or pieces of glass, and their pockets and rooms are filled with all sorts of rubbish. Some cases delight in fantastically decking their persons with flowers, ribbons or rags, being utterly incognizant of their incongruous appearance.

Clinically two forms of dementia are differentiated, the Agitated and the Passive.

Agitated

In the Agitated form the patients are restless, talkative and even obtrusive or destructive. The restlessness, however, is automatic and the movements are analogous to those shown by idiots, such as anteroposterior or lateral oscillations of the body. Occasionally these movements take the form of grimaces or gesticulations of the fingers, arms or hands. Some patients will walk for a certain distance on a particular strip of ground, others run in a circle or walk backwards, or when walking will frequently stop and whirl round on the heel.

Speech

The speech may be verbose, but the sentences are disconnected and used mechanically without a clear conception of their meaning and without association of ideas.

Expression

The expression of these patients is silly and

childish. They are usually calm, but there may be at times exacerbations of agitation, slightly resembling maniacal attacks, but the violence is without purpose and lacks the emotional basis which characterizes the violence of the maniac.

Passive

Passive dementia represents the lowest degree of mental apathy.

Countenance

The countenance is now completely expressionless. The limbs, half paretic, are twisted under their owner and in their inactivity the patients resemble cowering statues or animals, whose cerebral hemispheres have been removed. These patients will sit, for hours, utterly motionless, with the chin sunk upon the breast, while floods of saliva continually flow from the mouth. Mute, expressionless, regardless of hunger or thirst or any of the physical calls, they require to be fed, dressed, undressed and cared for like infants.

As the deterioration proceeds even the few words of their limited vocabulary are lost. Utterly oblivious of the past or present, with complete mental annihilation, the patient lives in a veritable "land of darkness, as darkness itself and of the shadows of death, where the light is as darkness."

Death

No greater tragedy of existence can be imagined, but fortunately nature is merciful and within a few years closes the scene by death, through

extension of central paralysis or by an intercurrent diarrhœa, some pulmonary disease or some other acute affection.

TREATMENT

The treatment of these cases depends upon the degree of mental impairment. When the mental weakness is slight these patients can be kept at home and, under judicious management, may accomplish a fair life's work in lines requiring moderate mental activity. The majority of cases are much better off in an institution, where they are useful in carrying out its simple daily routine of tasks.

The bodily health, of these cases, is usually good, but their power of resistance to disease is less than that of the normal individual. The worst cases require the constant care and oversight of a well regulated hospital for the insane.

CHAPTER XVII

GENERAL TREATMENT

The first question that arises after a case of insanity has been diagnosed, is, where shall it be treated, at home or in some private or public hospital for the insane?

Home treatment

Home Treatment, as we shall use the term, is not limited to treatment in the individual's own home, but embraces all treatment outside of a regular public or private institution chartered for the treatment of the insane.

Financial condition

The decision of this question must depend, largely, upon the financial condition of the patient, his age, the peculiar traits of his family, and the nature of the illness.

The cases for whom we are accustomed to recommend Home Treatment are the wealthy who, whatever the form of the disease, can command the highest skill of experienced physicians and trained nurses and surround the patient with every luxury and safeguard, thus rendering injury to himself or others impossible; young people whose future lives are thus freed from the stigma of incarceration in an institution; business men whose business prospects are liable to be ruined by a residence in an institution, harmless chronic maniacs, melancholics when the dis-

Young people

Business men

position to suicide no longer exists, and certain cases of terminal and senile dementia, where only patience, tact and watchfulness are needed for their care at home. The foregoing we advise to be given the advantages of Home Treatment. The following we imperatively demand must have this form of treatment, unless so poor as to render it impossible, all cases, belonging to the Infection or Exhaustion Psychoses, when the high fever and weakened bodily condition render removal positively dangerous to the life of the patient.

Infection or Exhaustion psychoses

After an experience of several years as a physician in an insane hospital and after many years of experience in the treatment of every form of insanity in private practice we are convinced that, where the circumstances and the case will permit, the Home Treatment offers many advantages over that in an institution. To be successful the Home Treatment must be carefully inaugurated and strictly carried out. If these conditions cannot be fulfilled all cases are better off in an institution.

For the instruction of those who may desire, or find it necessary, to treat their patients at home, we outline our own method of treatment.

Patient's home

If the environment is favorable to recovery the afflicted one is allowed to remain in his family. In each case the family is distinctly informed

that there is to be no interference on their part with the mode of treatment and that the nurses are to receive no orders except from the physician, and that nurses and patient are to be absolutely under his control. Treatment in the patient's home is not, however, always practicable, as the temperament of other members of the family may cause an exacerbation of the ailment in the patient himself or render them liable to a similar attack, if constantly subjected to the patient's influence, or a change of scene and association may appear necessary in order to break the patient's painful train of thought and give him a start in the right direction. Under these circumstances we either secure a house and equip it with the necessary servants and nurses and devote the establishment entirely to the patient, or we obtain suitable accommodations in a private hotel, or with a private family, in which are not wanting education, christian refinement, tact and plain common sense.

Trained nurse

Next is employed an experienced trained nurse, two or even three if the case requires it (not members of the family).

Room

The room selected for the sufferer must be large, well ventilated, accessible to the morning sun, and as far removed as possible from the noise of the household and the street. The windows should be guarded (if necessary) and the

doors securely fastened. All sharp instruments, such as razors, knives, scissors, and small bric-a-brac articles, should of course be removed. Constant watchfulness is required that the patient secures no cord, bandage or article of clothing by which strangulation might be accomplished, and that all dangerous drugs, or poisonous substances, common for household purposes, like carbolic or oxalic acid, etc., be kept under lock and key.

Kindness, faithfulness, watchfulness, sympathy and tact are indispensable in every case. Beyond these mere generalities, the details of treatment must, necessarily, vary according to the nature of the individual case, his temperament and liability to injure himself or others.

Rest treatment

In Acute Cases, in fact, in any case where the physical powers are much exhausted, the patient must be kept continually in bed, in a recumbent position, by mechanical means if necessary. During this time a liberal amount of nourishment is given in the form of milk, eggs raw or cooked, milk with egg albumen, beef tea, strong broths or some of the beef extracts, cereals, vegetables and fruit. In this manner sleep is most easily induced and the waning strength is conserved until the crisis is passed. The high temperature, rapid pulse, restlessness and maniacal fury may give the patient a semblance of strength. The ap-

pearance, however, is deceptive, and unless the greatest care is observed this waste of nervous force will result in death by nervous exhaustion, or, what is far worse, complete Dementia.

During the continuance of the Rest Treatment care must be unceasing that patient and bedding are kept scrupulously clean, the patient being given a bath of alcohol and water night and morning or at least once a day. Frequent vigorous rubbing of the entire surface of the body and general massage will also prove useful adjuvants in keeping up an equable circulation and exercising the muscular system. Great care must also be taken in the ventilation and disinfection of the room.

Cleanliness

During the convalescence of Acute and in all chronic cases, in which the strength will permit, every suitable outside aid should be adopted to direct the sufferer's mind from its morbid channels of thought, agreeable companions, pleasant surroundings, regular exercise in the open air, carriage drives, rides upon horseback, and any quiet amusement or occupation which will divert, without taxing the mind, should be provided.

Diversion

Having thus, briefly and cursorily, described this form of treatment which any physician can easily carry out, let us consider a few of its advantages.

First the trouble and publicity of a legal commitment of the patient is avoided.

Legal commitment

Remains a citizen

Second the patient remains a citizen. No jury deprives him of property and accountability when attacked, or restores the same to him when cured. When he resumes his place in the world he is simply a man returning to his business after a siege of sickness.

Individual care

Under Home Treatment, furthermore, the patient receives individual care and is freed from any possibility of abuse. With but one patient to attend, and continually exposed to the oversight of the family, the friends and the physician, the nurse has no opportunity to give the patient other than the kindest care, the most devoted nursing.

Food

The food is prepared in accordance with the individual's taste (a natural impossibility in a large institution), and being more daintily served is more tempting to the appetite of the patient and more in accord with the needs of a sick person.

Exhaustion of a journey

In the severest forms of insanity, like the Infection or Exhaustion Psychoses, where the physical powers are tried to the utmost and the fever runs, at times, to almost incredible heights, the chance of recovery is greatly enhanced by avoiding the necessity of removal from home, and the exhaustion of a railway journey. No physician would advise a long journey for a severe case of typhoid, in the worst stage of the disease, yet the temperature and pulse of a patient with Collapse

Delirium or Stuporous Melancholia is often much higher than that of a Typhoid case. It is no wonder that the records of our Insane Hospitals show such enormous death rates in these cases. When the cases arrive at the institution their vital powers are completely exhausted and they are beyond the skill of any physician. Let these cases be properly treated at home and much of this danger is avoided and their prospects of recovery are greatly enhanced. These are the cases which usually die or are entirely restored to reason, hence their proper treatment is of the highest importance.

Axiety of friends

Another advantage is the lessening of anxiety to relatives and friends. There is no vantage ground for the imagination. The family knows all. With the patient in his own home, where the friends are cognizant of every means employed for his restoration, as well as of all changes occurring in the course of the disease, that indescribable burden of doubt and suspicion is lifted.

Sane companions

Another advantage in Home Treatment is that the patient is surrounded only by sane companions whose influence tends to direct the mind back to its normal channels. The painful scenes unavoidably connected with a disturbed ward are avoided, as well as the evil effects of association with other insane patients.

Relapse into melancholia

Another advantage is the lessening of the danger of relapse into Melancholia when the patient is issuing from a state of excitement and first realizes his condition and surroundings. Often have we seen maniacal cases, when sufficiently restored to reason to recognize their surroundings, drop into the profoundest melancholia from which nothing seemed able to restore them. In a private house restoration from insanity is like the convalescence from any other illness. In a private family also exists for the patient every form of diversion open to any one.

Amusements

Graduated to his stage of convalescence, lectures, concerts, operas, theatres can all be utilized as useful aids in the process of cure.

Hospital cases

After eliminating all the cases which we have mentioned a large number will remain which should at once be committed to some suitable public or private institution for the insane. These include (1) all persons of moderate means where it is impossible to supply the sufferer with the necessary requirements for their proper care outside the walls of an institution; (2) Suicidal Cases. Whatever the circumstances of these patients they are much better off in an institution, as the facilities for the accomplishment of suicide are too great outside; (3) Homicidal Cases. No physician, in our opinion, is justified in imperilling the life of friends or nurses by

allowing such cases to remain out of confinement. Commit them at once and take no chances; (4) Paranoiacs. The most dangerous insane are Paranoiacs and no family or community is safe while one of them is at large; (5) Insane Epileptics. Many of these patients are exceedingly dangerous and when this is the case they should be immediately placed where they can do no harm; (6) Paretics. In the prodromal stage it is often impossible to persuade the relatives to send a paretic away. All cases should give up business and be kept as quiet as possible. The rest treatment is exceedingly beneficial, but it is always difficult to carry out. All of these cases in any stage are much better off in an institution, and when the disease is fully established they should be committed.

Hospital for the Insane

In selecting an institution it is always better to choose one devoted especially to the treatment of the insane. Friends frequently desire to send the invalid to a general sanitarium, but it usually is found to be a mistake if one complies with their wishes, as in the end the patient has to be sent to an insane hospital and much valuable time is lost by the experiment. Friends also often desire to try, at first, the effect of change of scene and travel, but, in the early stages of any mental disease, this is more liable to aggravate than ameliorate the condition. When the violence of the

mental storm has passed and the patient is convalescent benefit may, in some cases, be derived from travel, especially a sea voyage. The patient should, however, be accompanied by a physician conversant with mental disease and very little sight seeing be allowed. Long journeys should be avoided and these regulated to the patient's physical condition. It is usually best to select some quiet spot and trust to the change of scene for the desired amelioration and strengthening of the convalescing mind. Our experience has demonstrated that high altitudes are best suited to Melancholics, while sea air will most benefit cases recovering from maniacal conditions.

Sea voyage

Whether treated at home or in an institution, modern experience has proven that all forms of insanity recover much more rapidly and completely when confined in bed and treated as veritable invalids. Not only are the nervous powers conserved, but there is less daily waste when the patients are kept quiet in bed. Much more sleep is obtained and the physical forces are much more speedily recuperated than when the patients are allowed to exhaust themselves by constant exercise impelled by their mental restlessness and the delusions by which they are governed.

Bed

In excited and sleepless cases much benefit is often derived from the prolonged hot tub bath.

Hot tub bath

The water should be about 98 degrees F. and the patient can be kept in it from fifteen minutes to hours if necessary. By this means extreme excitement is often quelled and good sleep obtained independent of all drugs.

Many patients are so weak and exhausted that they willingly remain in bed, others yield to the persuasions of a tactful nurse. When mechanical restraint is required the body bandage or protection sheet will be found the most satisfactory and the least irritating, and when thus restrained the patients soon become resigned and quiet, obtain more rest and are less excited than when restrained by the physical efforts of a nurse.

Protection sheet

When the physical powers are sufficiently resuscitated by this enforced rest the complete restoration will be facilitated by the judicious employment of exercise, amusement and occupation, which should be carefully initiated and gradually increased until the normal physical and mental strength is restored.

Exercise

All forms of insanity require a liberal amount of nourishing, easily digested food, not only for meeting the daily needs of the system, but for the repairing of previous wastes. For this purpose the food selected should be that which is most easily assimilated and which will most rapidly rebuild the depleted and exhausted physical

Diet

forces. Many cases, either as a result of anorexia and a general distaste for all food, or on account of their mental excitement, which causes them to utterly neglect the demands of the stomach, or by reason of the delusions by which they are governed, may either take food in insufficient quantities or refuse it altogether. In any case, whenever the patient persistently refuses to take sufficient nourishment, whatever the motive, it should at once be administered by force. In some cases it may only be necessary to put the food in the mouth of the patient, others will eat if they can obtain the food by stealth, but with many the intense excitement or the presence of delusions of poison may render feeding by force a necessity. In such cases the nasal tube should be resorted to immediately. For this you can use the soft rubber catheter, known as Paine's feeding tube, or any of the other tubes of the same character, which are kept by all dealers in surgical instruments. The tube after being oiled is carefully passed through the nose and into the stomach and to this is then attached a Davidson's syringe. By this means any form of liquid food can be quickly and painlessly injected into the stomach. Ordinarily there is little trouble in the introduction of this tube. The patient should be laid upon the back and firmly held by assistants to prevent the movement of the head

Nasal tube

and body. The only danger is that of passing the tube into the lungs. To obviate this, after the tube is introduced, before attaching the syringe, put the finger over the end of the tube, and if no air comes out with the patient's respiratory efforts it is certain that it has entered the stomach. Some patients may give trouble by drawing the tube out through the teeth, but if after the tube has passed the nose it is pushed rapidly down the throat this will be prevented. After the food is injected have the nurse hold the patient's head down upon the pillow for a few moments to prevent voluntary ejection of the food. Some patients, especially if laboring under the delusion that they are being poisoned, make strenuous efforts to expel the food after it has been injected, but if they are prevented from raising the head they cannot succeed. Be careful to see that the food to be given is not too thick, otherwise the tube will become clogged and it will be necessary to remove and cleanse it and repeat the whole process. If the tube is very long do not introduce too much of it or it may become twisted on itself, preventing the injection of the food and requiring its removal and reintroduction. Into the food can be poured the medicine when desired. The amount of food given should be from a pint to a pint and a half twice daily.

Stomach pump

The nasal tube is much better than the stomach pump, as with the latter the teeth must be pried open with a wedge and are often damaged in the operation. Deaths even have been recorded as occurring during the feeding with the stomach pump, which is sufficient ground for its abrogation in favor of the harmless nasal tube.

Much care should be exercised in the choice of foods.

Milk

The food most universally useful, especially during the sojourn in bed, is milk. We use it hot, or cool, not cold out of an ice chest, as this is certain to chill the stomach and curdle into indigestible lumps and ferment and produce gases in the stomach and intestines. When taken cool the introduction of a little salt or lime-water will usually prevent indigestion. When these methods fail it should be peptonized with Fairchild's and Foster's peptonizing tubes, and in this form can be advantageously taken by the most delicate stomachs. Some cases do better on milk heated to about blood heat, or a temperature higher than the blood, and when there is great debility and exhaustion this form should be adopted. If in doubt as to the purity of the milk supply give only sterilized milk. If it is impossible to purchase sterilized milk, it is easily prepared by simply raising ordinary milk to a temperature of 160 degrees F. and keeping it there

Peptonized milk

Sterilized milk

twenty or thirty minutes. The amount of milk given in twenty-four hours should range from three pints to three quarts, according to the patient's capacity and power of assimilation. Hot milk also serves as a valuable hypnotic in many cases when given at night.

Milk and Vichy

I have had marked success, especially in Alcoholic cases, with milk and vichy given in equal parts. For many years, in a large experience on an Alcoholic ward of a public hospital when cases have come in after a prolonged debauch, when the stomach is irritable I have been in the habit of putting them at once upon the vichy and milk. By using this I have been able to stop all alcohol at once and with no evil results.

Soups, broth

In addition to milk strong nourishing soups, chicken, lamb, clam or oyster broth can be given. Cream soups, flavored with celery or lettuce or tomato, bean or pea soups may be added to the dietary. A valuable adjuvant is also found in bovinine, which may be given two or three times daily, either alone in water or a dessertspoonful may be put in the milk. When the milk is too rich it may be diluted; but in the city it more often requires to be enriched by the addition of a little cream. In some cases the milk is more easily digested when the particles are broken up by a thorough shaking. In aged patients buttermilk is often beneficial and in other cases where

Bovinine

Buttermilk

there is any disturbance of the kidneys. Koumyss may also help with some especially delicate stomachs.

Eggs

Next to milk we rank eggs, raw or slightly cooked. When they can be taken raw they are especially strengthening and many physicians report giving from three to a dozen daily with marked benefit to their patients. Personally I have not met with such marked beneficial results from the excessive engorgement of raw eggs. I have seldom found a patient who could long take more than three a day without some digestive disturbance. When the patient objects to taking them alone, they can be thoroughly beaten up with milk and if desired a teaspoonful or two of wine or whisky or brandy can be added. As a rule, I place little reliance upon stimulants in insanity and believe that most patients are better without them. Clouston, however, lays great stress upon the administration of beer, wines and spirits in certain cases and reports most gratifying results.

Clouston

While the liquid diet is being administered a slice of toasted stale bread or crackers or zwieback may be allowed two or three times daily if there is a great craving for solids.

While the patient is weak and exhausted he should be fed once every two and a half or three hours from six A. M. to nine P. M. If restless

and sleepless at night the food should be continued night as well as day.

When the physical powers have become nearly restored by the liquid diet and the weight has increased to the normal and convalescence is well begun solid food may be allowed.

Solid food

This should consist, at first, chiefly of cereals, fruits, vegetables and fat-producing foods. Meat should be given sparingly, for while it may benefit some cases of Melancholia, it is too stimulating for Maniacs, Paretics and Epileptics. Butter in liberal quantities, olive oil, cod liver oil and some of the fatty emulsions will prove of benefit.

During convalescence milk, eggs, grain foods, lamb, bacon, chicken, baked potatoes, fresh vegetables and plenty of fresh fruit will hasten recovery.

All food should be of the best quality and cooked and served in the most delicate and appetizing form. Fresh water, given in liberal quantities, also exerts a beneficial effect.

Politeness

Much of the success or failure in the treatment of the insane depends upon the manner and bearing of physicians and nurses when in their presence. Always show to an insane person the same courtesy and politeness that he would expect if he were well. Never do anything in the presence of the insane of which you would not

like to be reminded after their recovery. Many of the insane in their wildest moments are entirely cognizant of all that occurs about them and understand all that is said, retaining after their restoration a vivid remembrance of all that has transpired during their illness. A sunny cheerful manner, kindly sympathy and persistent hopeful optimistic assurances of recovery often do more than drugs for the restoration of the insane.

Occasionally surgical operations are required in the treatment of the insane.

Orificial surgery

In some cases of masturbatic insanity in men circumcision has been followed by cure. In women loosening or excision of the hood of clitoris has often proved helpful. Orificial surgery claims many victories in the realm of mental disease and every case at the beginning of treatment should be carefully examined, and if any of these operations are required, they should be immediately performed.

HYDROTHERAPY

The extensive use of Hydrotherapy in Mental Disease is of comparatively recent date. Fifteen years ago a complete Hydrotherapeutic institution for the care of the Insane was practically unknown. Today in every private and public Hospital for the Insane Hydrotherapy is

recognized as one of the most important methods of treatment. With the recognition of the varied uses of water, an almost complete revolution has been made in the general management of the insane.

Restraint

In a large measure to Hydrotherapy can be credited the establishment of the non-restraint system now in vogue in all Hospitals for the Insane. A knowledge of the varied uses of water has relegated to the junk heap cribs, chamisoles, muffs, and lock straps. The demonstration of the soothing and quieting influence of baths upon the brain and general nervous system has, also, in all these institutions greatly diminished the use of powerful drugs with their baneful trail of after effects.

Drugs

The baths most efficacious in the treatment of Mental Disease are:

1st. The prolonged hot tub bath.
2d. The hot pack.
3d. The cold pack.
4th. The douche spray needle baths.

Prolonged hot tub

Water 96° to 98° F.

The bath most frequently useful, especially in excited cases, is the *prolonged hot tub bath.* The water should be at a temperature of 96 degrees to 98 degrees F. The quantity of water employed should be sufficient to afford a considerable degree of buoyancy, so that there may be as little pressure as possible upon the limbs and different

parts of the body. The tub, if desired, can be supplied with a wooden cover, or a canvas sheet may be stretched over it, great care being observed that excited or depressed cases are allowed no opportunity of strangling themselves by means of the edge of the sheet. If a portable tub is used, a long hose carried to the nearest bath-room can be utilized for the ingress and egress of the water supply. As a rule, the first bath should last from fifteen minutes to an hour. In cases of marked excitement, the baths may be continued for several hours. Certain physicians gradually increase the length of the bath, leaving the patient in the bath the first day for half an hour, the second day one hour; third day two hours; fourth day three hours, and so on up to six or seven hours a day. As a rule, excited patients become quickly accustomed to the water and after a few minutes make no objection to the continuance of the bath. Warm baths, by lessening the arterial tension and the general nervous irritability and relaxing the muscular system, produce sleep and reduce the mental excitement. For the production of sleep, the best time for its administration is just before retiring. The forms of disease to which this bath is particularly adapted are the maniacal types of Manic-Depressive Insanity, the excited forms of Paresis, Amentia, Febrile Delirium, Collapse De-

Duration of bath

Sleep

lirium, Korsakoff's Disease, Alcoholic, Hysterical, and Epileptic Insanity, and Neurasthenia, when attended by persistent sleeplessness.

Hot Pack
Weak heart
Cerebral hemorrhage

The Hot Pack is serviceable when, on account of a weak heart, cerebral hemorrhage, or other reasons, the tub bath is contraindicated. The Hot Pack is applied in this way: A rubber blanket is spread upon the patient's bed and upon this a sheet, which has been soaked in hot water and then wrung out dry, is laid. The patient then lies down upon this and the entire body, with the exception of the head, is evenly and closely enveloped in the wet sheet. One or more woollen blankets are then spread over the sheet. Thus enveloped, the patient is allowed to remain for an hour or longer, or if he falls asleep until he awakens. This bath is especially advised for cases of obstinate sleeplessness, whether the patient is sane or insane, and in cases of insanity, where the prolonged warm tub bath does not produce the desired results.

Method of administering

Cold baths

Cold baths, on account of their stimulation of the brain and spinal cord, through their action upon the sensory and motor nerves and the cerebrospinal circulation, are counterindicated in maniacal cases, but often prove useful in depressive and stuporous states.

Spinal Douche

The Spinal Douche is administered by means of various nozzles, through which, for a few sec-

onds only, from a distance of about ten feet, a strong stream is ejected up and down the patient's back. For the first application the water should only be moderately cold, but later may be reduced by degrees to 50 degrees F. If the patient's reaction is not good, it is well for him at the beginning to first take a warm bath or stay for a few moments in a hot-air box before it is applied. The Spinal Douche is often useful in Neurasthenia, Hysteria, apathetic, stuporous, depressed, and cataleptic states, where stimulation of brain, spinal cord and general condition is needed.

Temperature

Another method of applying cold water is the "Dripping Sheet." By this method the patient, after a cold bath of 85 degrees to 75 degrees F., standing in warm water or on a dry surface, with a cold towel about the head, is wrapped around with a linen sheet which has been dipped in water of 75 degrees to 55 degrees F., the nurse, at the same time, applying friction until a thorough reaction is apparent. This bath is especially valuable in Neurasthenia and in mental disorders where marked surface stimulation is desired.

Dripping Sheet

A summary of its varied beneficial effects establishes Hydrotherapy as one of the most important adjuncts in the treatment of Mental Disease.

CHAPTER XVIII

MEDICAL TREATMENT

Thirty-five years ago the application of drugs to Mental disease, according to the law of similars, was a new and untrodden field. Since that time numerous institutions have been established in various States of our Union, and the brilliant results achieved within and without these institutions have demonstrated that Homœopathy is as potent in overcoming mental disease as any of the other ills of humanity. Numerous mental symptoms recorded, in our provings, have been verified and numberless bedside experiences have clearly shown that the Homœopathist needs no assistance from any other school of medicine to successfully combat this most dreaded foe of humanity. Any physician who carefully studies his cases and applies his materia medica according to the laws laid down by Hahnemann need seek no assistance from opiates, hypnotics and anodynes.

Homœopathic treatment

In prescribing a remedy for the cure or relief of any form of insanity it is necessary to consider:

(1) The pathology which forms the basis of the disease.

Pathology

Mental aberrations

(2) The mental aberrations produced by this physical change.

Totality of symptoms

(3) The totality of symptoms of each individual case.

Examination

When called to treat any case of mental disease a careful examination should be made.

(1) As to the patient's general physical condition.

(2) Every physical disturbance should be considered and its relation to the mental disease accurately determined.

(3) Every variation from the patient's normal mental state should be ascertained.

(4) Having noted all the subjective and objective symptoms, presented by the patient, together with those elicited from the general history of the case, these should be made the basis of a prescription and the remedy most closely indicated should be applied according to the Law of Similars.

For convenience of reference we shall here group together the remedies most frequently curative in the different forms of insanity and their characteristic indications.

DEPRESSED STATES

We here group Acon., Actæa rac., Antimonium crude, Alumina, Ars., Bap., Bell., Calc. carb., China, Cactus, Dig., Gels., Ign., Lil. tig.,

Nat. mur., Nux moschata, Puls., Phos. acid, Sepia, Sulphur, Verat. album.

ACONITE

This remedy is not as frequently indicated in Depressed States as in some other of the Mental disorders. In Melancholia of pregnancy it may prove efficacious when there is vertigo with nausea and great depression on account of fear of death, which the patient continually announces imminent in her approaching parturition, and distresses all about her by ceaseless weeping and lamentations. There is also great restlessness and sleeplessness or sleep disturbed by disagreeable dreams.

Melancholia of pregnancy

ACTÆA RACEMOSA

Thinks she is becoming crazy. Greatly depressed by fear of death and a sensation as if something had settled down upon the brain, rendering everything dark and obscure. Severe pains through the eyes and whole occipital region as if they were penetrated by sharp instruments. Nausea, false labor pains, sleeplessness.

Especially suited to rheumatic and neuralgic hysterical subjects who have suffered much from uterine disorders and often indicated in the Melancholia of Pregnancy.

Melancholics with uterine disease

ALUMINA

Sad, depressed, dull, stupid, filled with an indescribable fearfulness. Peevish, obstinate, not inclined to do anything. Loss of appetite, with a longing for indigestible substances and obstinate constipation. Restless unrefreshing sleep. This remedy is not very frequently demanded, but when indicated speedy and effectual in its action.

Cravings for indigestible substances

ANTIMONIUM CRUDUM

Undue anxiety about the present and future. Obstinate and taciturn. Inclined to suicide by shooting, especially at night. Dull, apathetic, regardless of the calls of nature. Tongue coated white. Alternate diarrhœa and constipation. Wakeful at night, sleepy in the daytime.

Melancholia, drifting towards dementia

Adapted to the most serious forms of the disease. When dementia seems imminent it should not be forgotten.

ARSENICUM ALBUM

One of the most frequently indicated remedies in severe acute Depressive States.

A typical arsenicum case is one of the most serious of mental diseases. A glance will clearly reveal the desperate character of the malady. The pale face, pinched features, shriveled skin,

haggard and anxious countenance, weak wiry pulse and rapidly increasing emaciation portray the intense virulence of the attacking foe. The tongue is red, dry, tremulous and parched and the patient is continually tortured by the characteristic arsenicum thirst. Constantly impelled by an overpowering restlessness, if allowed to remain upon their feet, the victims unceasingly pace up and down their apartments night and day, wringing their hands and bewailing their fate. In their agony they may pull out their hair and bite their nails to the quick, often causing deep ulcers. At last, overcome by their mental anguish and driven to frenzy, if not prevented, they seek an escape from the horrors of their present misery through suicide. Not only are they suicidal, but they may in their desperation mutilate themselves, pull out the eyelashes or tear off their eyelids and inflict serious physical injuries. In bed, in their restlessness they constantly roll from side to side night and day and moan, groan and bitterly lament their direful fate.

Severest forms of depression

Suicide

Yet these desperate and apparently hopeless cases, if prevented from injuring or killing themselves and properly nursed and sustained by a sufficient quantity of nourishing food, by the marvelous influence of Arsenic, are often restored to perfect health of body and mind.

Frequently curative

BAPTISIA.

The effects of Baptisia upon the worst forms of Stuporous depression are no less marvelous than those produced by Arsenic in desperate Depressive States.

When you encounter a case of Stuporous Depression with an extremely high temperature, an excessively rapid pulse and respiration, when the dark sodden countenance and expressionless eye clearly indicates the patient's utter obliviousness of his surroundings and when the fetid breath, dry brown tongue, sordes covered teeth and strongly offensive involuntary stools reveal the most dangerous typhoid state, look with hope to Baptisia. Baptisia will check the rapidly advancing degeneration. Baptisia, will antidote the toxic effects of the virulent poison circulating in the blood. Baptisia will restore the bloated abdomen to its normal state. Baptisia will arouse the stupefied brain from its torpidity and restore the patient to his normal mental activity. In those cases where the symptoms indicate profound septicæmia the effects of Baptisia are marvelous.

Typhoid state

Septicæmia

BELLADONNA

The Belladonna case of Melancholia is greatly depressed and subject to violent attacks of weep-

ing attended by intense fearfulness. The head is hot, the face flushed, the pupils dilated, sleeplessness prevails or there is great sleepiness, the patient awaking with a start the moment she falls asleep.

When depression occurs in connection with marked passive cerebral congestion no other remedy is as satisfying, especially when given in the lower potencies.

Passive cerebral congestion

CALCAREA CARBONICA

Apprehensive of misfortune, thinks she will die or become crazy. Peevish, obstinate, the face is pale, pyrosis, constipation and flatulency reveal the disordered condition of the digestion. The circulation is poor and the sleep unrefreshing.

Adapted to poorly nourished scrofulous phthisical women.

Scrofulous women

CACTUS

The Cactus patient is sad from her unalterable conviction that she is about to die from the incurable disease with which she is afflicted, or that some terrible disaster overhangs her. She is taciturn and inclined to remain by herself and weep constantly. Attending the mental symptoms we find the characteristic heart symptoms and a sensation as if some heavy weight were

Depression with heart symptoms

pressing down upon the brain, accompanied by pulsations in the top of the head. The patient is also easily frightened and often awakens at night in a panic.

DIGITALIS.

Worse six P. M.

Great anxiety, depression and dread of the future, with sadness and weeping worse about six P. M. and aggravated by music. Morose, irritable and gloomy, weakness of memory, dull, stupid and confused.

Throbbing headache in forehead, or at the bottom of the orbits, pupils dilated. Red, yellow, green, black and white colors before the eyes. Hissing and roaring in the ears, face pale. Sleep uneasy and unrefreshing, troubled by frequent waking. General appearance, of weakness and exhaustion, appetite poor, respiration irregular

Slow pulse

and difficult, *pulse slow* and *weak*, or *slow* and *full*, often intermitting with sensation, at times, as if the heart stopped beating, accompanied by great anxiety, faintness, sinking at the stomach and general coldness of skin and extremities.

The chief indication of Digitalis is a slow pulse and whenever this symptom appears, attended by a general appearance of exhaustion and debility, a prompt and satisfactory improvement is sure to follow its exhibition.

CHINA

China may be called for when the Melancholia has been produced by some excessive physical drain, such as flooding, profuse leucorrhea or masturbation. To get satisfactory results from this drug it must be given in the tincture in appreciable doses.

Physical drains

GELSEMIUM

Gelsemium is indicated in depression where there is fever attended by marked mental dulness and a desire to remain quiet and undisturbed in bed. Lack of self-confidence and inability to make any decision is also a marked characteristic. There also exists a desire to throw one's self down when looking over a height. A dull tired aching at the base of the brain is also frequently present.

Decision

Base of the brain

IGNATIA

When the depression has been produced by shock or long brooding over real or imaginary troubles and when the relief of tears is denied we find the relieving remedy in Ignatia. These patients are silent and prefer to remain by themselves and brood. Proffered sympathy is rejected and yet if it is not offered they imagine

Brooding

themselves neglected by their friends. They are obstinate and taciturn, often refusing to speak when addressed. Although given to brooding they may become hysterical and indulge in senseless laughter. The sleep is restless and often accompanied by nightmare. It is also useful in cases in which negativism is a prominent symptom.

Negativeness

Lasciviousness without erections

One symptom recorded in the provings of Ignatia, as "lasciviousness without erections, sexual desire with impotence, itching around genitals and on penis," was verified by us in a case of depression produced by business troubles. This man made constant attempts to masturbate, although seldom able to get an erection. The relief given by a high potency of Ignatia, prescribed entirely upon this symptom, was simply magical.

As some causes of sexual irritation are exceedingly obstinate, it would be well not to forget this symptom of Ignatia.

LILIUM TIGRINUM

Depression of spirits, inclining the patient to weep. Timidity, apprehensiveness of some fatal disease or of becoming insane. Loss of memory and difficulty in the selection of proper words when conversing. Pressure upon the rectum and irritability of the bladder.

Applicable to neuralgic, hysterical women who have suffered from functional or slight organic disorders of the uterus and ovaries.

Hysterical women with uterine and ovarian disorders

NATRUM MURIATICUM

The Natrum Muriaticum patient is emaciated and the face has a prematurely *old look*. There is loss of memory and disinclination for all mental and physical work. She is easily fatigued and greatly prostrated mentally and physically. These patients shed *floods* of *tears* and the more they are comforted the more violently they weep. They are ill-humored and easily provoked by any contradiction.

Old look of face

Floods of tears

These cases seem to revel in their grief and derive satisfaction from recalling all the disagreeable occurrences of the past for the purpose of indulging in melancholy meditation. They are taciturn, avoid companionship and think that they are pitied by everyone because of their misfortunes.

Especially indicated when the depression has followed intermittent fever and when the attacks of weeping are periodic in their occurrence.

NUX MOSCHATA

Nux Moschata is especially adapted to hysterical melancholics. The mood is changeable, one moment the patient laughs, the next she cries.

The memory is poor and there is marked confusion of ideas and an inability to continue a train of thought for any length of time. Any attempt at writing reveals an incoherency in the ideas. There is absence of mind, slowness of ideas and difficulty in answering questions. There is a great inclination to faint and a tendency to sleepiness.

Hysterical, faint, sleepy

PULSATILLA

Depression manifested by frequent weeping, solicitude concerning health, despair of salvation with constant praying and great anguish, causing her to desire to commit suicide. The grief of the Pulsatilla patient is changeable and she is subject to alternate moods of crying and laughing. The Pulsatilla patient is at times depressed and tearful, at others cheerful and happy. Mild, gentle and affectionate in disposition, she is easily persuaded, consolation is acceptable and she enjoys lively company and good advice.

Adapted to mild tearful natures with little vim. Pulsatilla is frequently demanded in the Melancholia of pregnancy complicated by gastric disorders.

Mild melancholics with gastric troubles

PHOSPHORIC ACID

Dread of the future, with anxiety and doubt about recovery. Disinclination to talk. Sad-

ness, grief and disposition to weep. Melancholia produced by care, grief, sorrow or disappointed love, excessive menstruation, masturbation or physical exhaustion caused by overactivity of the kidneys.

Masturbation, overactive kidneys

SEPIA

Nervous, sensitive to the least noise. Sadness, worrying about her health and the future, with frequent attacks of weeping, worse in the evening and in the open air. Dread of being alone, very irritable. Indifference and aversion to members of her family. Indisposition for mental work, with weak memory and difficulty in expressing her ideas. Indolent mood. Restless sleep, disturbed by anxious dreams, awaking in a fright.

Aversion to family

Weak empty-gone feeling in stomach, frequent desire to urinate. Urine thick, slimy, very offensive, with yellowish or reddish sediment. Profuse yellowish or white acrid *exceedingly offensive leucorrhea.*

Offensive leucorrhea

Sepia is chiefly useful in depression in women whose constitutions have been sapped by a long-standing leucorrhea and chronic organic disease of the uterus and ovaries.

Chronic uterine disease

SULPHUR

Depression, with disposition to weep; wishes to die, but fears for her salvation; inclined to

Changeable dwell upon religious subjects; apprehensive of future misfortune; variable mood, one moment crying, the next laughing; indisposition to mental or physical labor; with slowness of mind and body; great absence of mind and forgetfulness; peevish and irritable.

Constant heat in top of head; shooting pains in forehead and temples from within outward, worse from eating or stooping, better when pressing the head and when moving; pressing dull pain in vertex and sinciput, rousing from sleep early in morning, ceasing before noon.

Drowsiness during day and wakefulness at night; unrefreshing sleep, disturbed by frightful dreams.

Faint, weak sensation in stomach about 11 A. M.; much thirst with little appetite; constipation with hemorrhoids, or tendency to early morning diarrhœa; burning in vagina; menses too early and profuse and lasting too long, with flushes of heat and weak faint spells, feet cold or burning in soles of feet. Skin covered with pimples, burning and itching, easily ulcerating after scratching; sensation of insects crawling on skin of face, with itching increased by heat of bed; sensation of something running from chest to throat, causing a feeling of choking in throat; frequent general flashes of heat with faintness.

Sulphur is exceedingly useful as an intercurrent remedy in many chronic cases where the psoric element predominates. It is also frequently useful as a developer, bringing out symptoms at first hidden and unapparent, or reviving the suspended action of an indicated drug, causing the patient to go on to a rapid recovery. It seldom effects a cure unaided by other drugs. *Developer*

VERATRUM ALBUM

Melancholia, with anxiety, as if she had committed an evil deed; sadness, despondency and grief, with involuntary weeping and despair of her salvation. Fearful and apprehensive of misfortune. Mind dull and stupid, with obstinate taciturnity.

Paroxysms of pain in various parts of the head. Frontal headache, with nausea, vomiting and fever; pressive pain in the top of head; cold spot on vertex. Face pale, eyes fixed and sunken, with blue or green circles around them. Nose cold and pointed. Cold sweat on face and forehead. Sleeplessness or sleep disturbed by bad dreams.

Great thirst for cold drinks. Ravenous hunger, or loss of appetite. Frequent inclination to nausea and vomiting. Constipation or exhaustive diarrhœa. Excessive weakness and sudden sinking of strength. Skin blue and cold. Pulse *Weakness*

frequent, small and weak, often intermittent, at times almost imperceptible; defective circulation, with general appearance of lowered vitality.

Severe stuporous depression

Especially efficacious in the apparently most hopeless cases of Stuporous depression, where the patient sits in a stupid manner, with the head bent forward, taking no apparent notice of anything, answering in monosyllables or not at all; often eating nothing, unless fed; skin cold and blue; pulse weak and intermitting. With the foregoing symptoms we have occasional fainting spells, with temporary unconsciousness and suspension of the heart's action. Under the influence of Veratrum the depressed vital powers are soon revived and the patient advances to a complete recovery. The patient is liable to a relapse if the medicine is too soon discontinued, but when once the cure is fully accomplished it remains permanent.

MANIC STATES

The drugs most frequently useful in Manic States are Aconite, Agaricus, Anacardium, Apis, Arsenicum album, Belladonna, Camphor, Cantharides, Chamomilla, Calcarea carb., Cimicifuga, Hyoscyamus, Lachesis, Nux vomica, Phosphorus, Platina, Stramonium, Tarantula hispania, Veratrum album, Veratrum viride.

ACONITE

Frequently useful at the onset of the attack, when it is characterized by marked inflammatory action, shown by a full rapid pulse, high temperature, general heat of the skin, great restlessness and intense thirst. *Onset Inflammatory action*

The patients evince great fear and anxiety of mind, with great nervous excitability. They are tortured by every variety of fear and their timidity is stamped upon every lineament of the countenance. They are afraid to go out, to cross the street, or go where there is any excitement. They have a constant horror of approaching death, darkness and ghosts. Thought is confused, the memory weak and mental labor is an impossibility. They are restless in body and restless in mind. There is no stability of thought, one moment they are sad, the next gay. They are exceedingly erethistic, oversensitive to light, noise and music, intolerant of pain and cannot bear to be touched or uncovered. *Fear* *Erethistic*

The prevailing characteristic of the Maniacal Aconite patient is fear. While Aconite is often exceedingly beneficial in the beginning of the disease, it usually has to be followed by some other remedy before the cure is completed.

AGARICUS

Furious, fearless, menacing frenzy, which

causes the patient to assail and injure himself and others. Incoherent talking, passing rapidly
Excitement from one subject to another. Great excitement evinced by leaping, dancing, singing with great loquacity and exaggeration of the senses. Full of delusions of power and personal importance, imagines that he is at the gate of Hell, or on the brink of an unfathomable chasm, into which he is about to fall. Hallucinations of sight and hearing. Excitement followed by sleep, with great prostration upon awaking. Constant mus-
Twitching tremor cular twitching. Tremulousness of the whole body. This tremor is more internal than external and may greatly terrify the patient.

Especially indicated in cases complicated by
Chorea Chorea and great nervous prostration, and when indicated is exceedingly effectual.

ANACARDIUM

Fixed ideas that he is double; that there is no reality in anything; all appears like a dream; that the body and mind are separated; that a stranger is by his side. Imagines that her husband and child are not hers; fondles, then pushes them away. Thinks he is a demon. When walking
Suspicious feels that someone is pursuing, suspects everyone and is constantly apprehending trouble. Continually under two influences, one inciting to murder, the other urging him to be good. Imagines

that he hears voices of mother and sister who are far away. Has a devil whispering blasphemous words in his ear, constant inclination to curse and swear. *Auditory hallucinations*

The Anacardium patient is chiefly characterized by his ugliness and frightful profanity. The Antimonium Crude patient is peevish, the Cham. cross, the Belladonna pugilistic, the Nux Vom. ugly, but the Anacardium patient is cussedness itself. If you have never heard an Anacardium patient swear you have much to learn. An Anacardium patient can string together a greater variety of strong oaths than any other being extant. The profanity and billingsgate of these patients will make an ordinary fish wife appear reticent and modest. *Profanity*

We have found Anacardium more often curative in chronic Mania than any other remedy. *Chronic Mania*

APIS MELLIFICA

Mental excitement with great talkativeness, jealousy and sexual irritation. Irritable and fidgety, nothing seems to satisfy. Constantly busy, but does nothing right. Mania in women from a sexual cause. This remedy will prove helpful when the peculiar mental state is accompanied by an inactivity of the kidneys with puffiness under the eyelids and an aggravation of the mental excitement at 4 P. M. *Sexual irritation* *Kidneys* *Excitement at 4 P. M.*

ARSENICUM ALBUM

Hallucinations of sight

Sees ghosts about him, and vermin and bugs crawling upon his bed. Hallucination that there is someone by his side who imitates all his actions. Fear that he shall be obliged to kill someone.

While not as frequently indicated in mania as melancholia, we have had some excellent results with this drug, when the peculiar restlessness, thirst, physical exhaustion and midnight aggravation were present.

BELLADONNA

The belladonna patient in violent fury bites, strikes and kicks or tears everything to pieces. His talk is excited and incoherent. He may be exceedingly brave and pugilistic or terrified by the horrid creations of his excited brain. Every imaginable hallucination of sight may pass before his eyes, ghosts, hideous faces, dogs, bulls, animals, men or instruments of torture. These patients are extremely fickle, and their mental states are constantly changing. They may at times dance, sing and laugh, but the mood soon ends in an outburst of rage and violence.

Pugilistic

No other homœopathic remedy is more frequently indicated or as often curative in acute

manic states as belladonna. The intense cerebral congestion, wild delirium and extreme general hypersensitiveness of all the senses, produced in the provers, is a perfect picture of these states. *Acute Manic states*

A mistake is often made in giving it too low. We have found it when clearly indicated in these highly erethistic cases most effectual in the thirtieth or two hundredth potency.

CAMPHOR

The provings of camphor show its power of producing marked maniacal excitement manifested in violent overt attacks upon those about them, even to homicidal attempts. Some provers have also exhibited suicidal impulses.

Clinically it has proven effective in mania when attending or following the stage of intense excitement, great physical exhaustion and prostration are present, and the vital powers are at the lowest ebb. When the cold clammy skin and weak pulse show that fatal collapse is imminent, camphor often vies with veratrum in rallying the vital forces and revivifying apparently hopeless cases. *Excitement with prostration*

CANTHARIDES

Cantharides resembles belladonna in its violent excitement. These patients tear the clothing, and are especially inclined to bite at anyone who *Inclination to bite*

approaches, or they will bite the sheets and bed clothing. They are restless, moan and groan, and often bark like a dog. Hallucinations are present, and they see and converse with people long dead. Like anac. they show a strong tendency to swear, and are worse at night. The eyes are bright, pupils widely dilated, face yellow (unlike the red face of bell.), and wrinkled with a constant frown and expression of extreme suffering. The slightest touch aggravates the symptoms, as also does any dazzling object, as a mirror or glass of water.

Face yellow

The chief characteristic, however, and the one which should usually call for the selection of cantharides, is the intense, almost overpowering sexual excitement which accompanies the violence. The sexual excitement is the result of intense erethism and inflammation of the sexual organs, driving the patient to seek immediate sexual gratification. Hyos. and veratrum have also sexual excitement, but in these drugs there is a mingling of the psychical with the physical; in cantharides the excitement is solely physical.

Sexual excitement

The violence of cantharides is paroxysmal and terrific while it lasts. On account of the sexual excitement the cantharides patient seeks constant relief in masturbation.

This remedy is frequently indicated when the exciting cause of the disease has been masturba-

tion. Associated with this mental group we usually find the characteristic bladder symptoms of cantharides. *Masturbation, bladder symptoms*

CHAMOMILLA

Chamomilla is occasionally indicated, but usually as an intercurrent remedy, when its characteristic symptoms are present. These patients are cross, irritable, snappish, fretful, and cannot give a civil answer. They are always out of humor, and cannot endure to be spoken to, touched or have any one near. Hallucinations of hearing are said to be produced by this drug, but we have frequently prescribed it on this indication, and in every case have failed. Mental condition is worse during menstruation. *Irritability*

CALCAREA CARBONICA

Visions of faces and persons when eyes are closed. Delirious talk about fire, rats, mice and murder. Sees cats, curs and other animals about him, and fights them off. Imagines someone is walking beside her, that something hanging over the back of a chair is a person sitting there. *Visual hallucinations*

Calcarea carbonica is only beneficial when in addition to its peculiar mental symptoms, its general constitutional symptoms are present. *Constitutional*

HYOSCYAMUS

The hyoscyamus is not as violent and dangerous as the belladonna, and is less wild and more easily controlled than the stramonium patient. She sings, cries, laughs, scolds, swears, talks obscenely, and often accuses herself and her husband of infidelity. These patients often refuse food, claiming that it is poisoned. The fear of poison is one of the commonest delusions, and no other drug will as often remove it when present. The delusions and moods are exceedingly changeable, but the patient is usually jolly and good natured, but nervous, restless and sleepless. There is great sexual excitement, with much lascivious talk, and constant desire to expose the person and remain naked. Hyoscyamus is especially suitable for young, hysterical, nervous and easily excited women.

Poison

Sexual excitement

Hyoscyamus is very often demanded in mania. When indicated no remedy is more often curative.

LACHESIS

Lachesis is useful in cases of insanity when the patient is exceedingly loquacious. These patients talk incessantly, and so rapidly that it is almost impossible to understand them. A common delusion is that they are dead, and that preparations are being made for the funeral. They are

Loquacious

proud, jealous, suspicious, and often have the delusion of being under superhuman control.

On account of its marked action on the uterus and its antiseptic powers it is frequently demanded in cases due to septicæmia. *Septicæmia*

NUX VOMICA

No case is more disagreeable than a nux maniac. Opposed to everything that is done for him, ever ready to fight with those about him, he may, from pure cussedness, refuse to eat or drink, and require forcible alimentation to keep him alive. He is oversensitive, cannot tolerate noise, talking, strong odors or bright light. He is obstinate, cross, quarrelsome and ugly. Bry. is also ugly, but the bry. patient wants to keep still and be undisturbed, while the nux patient is restless, uneasy and aggressive in his ugliness. While presenting no marked delusions, from an apparent perversion of the whole moral nature, these patients are often among the most difficult to manage. *Ugly*

With these marked mental symptoms we find the usual characteristics of nux, so that one is not likely to make a mistake in the selection of the drug. When indicated we have found this remedy one of the most satisfactory in its results, although it is often slow in its action, and requires to be continued for some time. *Satisfactory*

PHOSPHORUS

Violent delirium, with restlessness, fear of death and constant desire to escape. Loud screaming with attempts to bite and strike those about him. Hallucinations of sight, sees faces leering at him wherever he may look. Nervous excitement, starts at the slightest noise. Intense sexual desire with entire shamelessness and constant attempts to remove all clothing and go naked. Imagines that he is in several pieces, and cannot properly adjust the fragments. Irritable, fretful and peevish. Nervous and fearful, worse toward evening, sleepless before midnight.

Sees faces wherever he may look

Phosphorus is not as frequently demanded as some other drugs, but exceedingly satisfactory when indicated. One of its most positive symptoms is the presence of hallucinations of sight "faces peering from every corner;" with this symptom present we have never failed to relieve the patient by the exhibition of phosphorus. It is most frequently demanded in cases with sexual excitement, and where the disease has arisen from a depleted state of the brain and general nervous system.

Sexual excitement

PLATINA

Proud, haughty, arrogant, imagines herself superior to everyone about her. Imperious and

dictatorial. Thinks she does not belong to her own family. Treats in a contemptuous and pitiful manner people usually venerated. Everything about her seems small, all persons about her are physically and mentally inferior to her. Changeable mood, great joyousness, alternating with sadness and depression. Anxious, morose, quarrelsome, peevish, irritable, easily offended, nympho-maniacal with painful sensitiveness of the genitalia.

Arrogant, contemptuous

The ever-present proud, arrogant, contemptuous mood will preclude any possibility of mistake in the selection of this drug. It is most frequently indicated in weak, hysterical women, with a tendency to nymphomania caused by irritation and excitement of the genitalia.

Nymphomania

SPONGIA

Happy, joyous, with a constant irresistible desire to sing and whistle, followed by distraction of mind and disinclination for all work. The gaiety of spongia resembles hyoscyamus, but is longer continued and less variable.

Desire to sing and whistle

Especially valuable in cases with a tubercular diathesis, and in patients subject to glandular enlargements, or where organic disease of the heart exists.

Tubercular

STRAMONIUM

Delirious, violent, foolish, noisy, joyous, furious, maniacal. Delirium of fear, as though a dog were attacking him. Violent with hallucinations of sight; sees bugs, rats, cats, dogs, rabbits and horrid beasts on all sides of him. Aggravation from the darkness, being alone and in the morning. Ameliorated by light and company. Constant movement of the limbs during excitement. Great aversion to fluids, the sight of which at times will almost produce convulsions. Incorrect ideas of distances and the size of surrounding objects. Screaming, catching and striking at imaginary spectres, which fill them with the utmost terror. Furious, bites and strikes at everyone who approaches. Fear with sensation as if the bed was being drawn from under her, and that everything was falling on her. While sitting on sofa kept holding on to everything to keep from falling off. The horrifying images appear at the side more often than in front. Sees black objects, black people and black clouds. Has a constant vision of an executioner standing before him; laughs and jokes about the hallucination, although it seemed a reality. Things and persons around him appear to be changed. Imagines that he is alone and abandoned in a wilderness. Talkative. Imagines

Violence
Visual hallucinations

Aversion to fluids

Fear

that he is very large and tall, but surrounding objects are small. Hallucinations of hearing, hears dancing, music and men talking in foreign tongues. Hears a voice under the bed at night. Exposes genitals.

Changeable

The mental state of the stramonium patient is subject to sudden and marked changes. One moment he is filled with horrid fears, the next merry and joyous, he sings and dances, the next full of rage, he vigorously attacks all about him. At times he is proud, haughty and arrogant and intolerant of his associates, or the senses may be dull and a stupid indifference to everything be manifested.

Severest cases

While representing by its provings a wide range of mental symptoms, stramonium has achieved its greatest curative triumphs in the severest class of cases.

When the delirium is wild and furious and the patient is possessed by the most fearful delusions and hallucinations, then is stramonium most clearly indicated, and seldom fails to bring speedy relief, soon banishing the horrid fiends and haunting images which have driven the sufferer into a perfect frenzy. Stramonium quiets his fears, quells his excitement and soothes him into a restful sleep, which is the first step in the return to health and reason. In acute manic states, epileptic insanity and delirium tremens it is often indicated and frequently curative.

TARANTULA HISPANIA

Delusions with hallucinations of sight, sees monsters, ghosts, faces. Exceedingly changeable, at one moment laughs and jokes, the next taciturn, irritable and ugly. Aggravated by music. Inclined to nymphomania, the patients helped by this remedy are characterized by their mental changeableness, treachery and sly cunning.

Changeable, treacherous, cunning

VERATRUM ALBUM

Delirium, with coldness over the whole body and cold sweat on the forehead. The patient prattles about religious subjects and vows to be performed. Imagines he is a prince, and behaves in a haughty manner. Persistent raging with great heat of the body. Noisy, cursing, howling, with frequent attempts to escape. Runs about howling and screaming, worse in the evening. Ill humored, irritable, vexed from slightest cause. Rushes about the room and tries to kiss everybody. Hallucinations of sight; room appears full of people, with whom the patient converses for hours. Sleeplessness, with constant talking and loud laughter.

Violent excitement with great prostration

The furious delirium of veratrum album, with violence and destructiveness, resembles that of belladonna and stramonium. In veratrum album, however, we have much greater physical exhaus-

tion evidenced by a weak pulse, coldness of the body and cold sweat on the forehead. The veratrum patients must have speedy relief or die. Veratrum album is especially efficacious in mania occurring in women where the disease is dependent upon some disorder of the sexual organs, and is aggravated at each menstrual period, or in women whose menses have been suppressed and who imagine themselves pregnant. Many of these cases are subject to amorous frenzies, which are strangely mixed with the wildest religious vagaries.

Women Sexual organs

VERATRUM VIRIDE

Veratrum viride has few mental symptoms recorded in its provings, but has been found extremely useful in many mental diseases. Its selection is usually determined by its general physical conditions.

Its sphere of usefulness, however, seems limited to the resuscitation of the physical powers, and when this is accomplished little can be expected from it as regards the restoration of the patient's reason.

Although any of the remedies mentioned are liable to be needed, the four mainstays in the treatment of manic states are *belladonna, hyoscyamus, stramonium* and *veratrum album.*

The medical treatment of *paresis, paranoia* and *dementia* offers little. Founded upon organic lesions of brain and cord, all that has thus far been accomplished has been a temporary amelioration of symptoms with slight effect upon the underlying disease.

INDEX.

Aboulia, 72
Aconite, 104, 114, 145, 174, 241, 335, 359, 461, 475
Actæa racemosa, 114, 146, 176, 359, 461
Acute delirium, 97
Agaricus, 105, 115, 146, 175, 336, 475
Agoraphobia, 124
Agostini, 5
Albuminuria, 179
Alcoholic insanity,
  acute, 167
  symptomatology, 167
  pathology, 173
  treatment, 173
Alcoholic insanities, 163
  chronic, speech in, 289
    tremor in, 289
Alcoholic psychoses, 166
  melancholia, 178
  mania, 179
  symptomatology, 179
  prognosis, 179
  pathology, 181
  treatment, 182
Alcoholic dementia, 187
  paranoia, 182
  symptomatology, 182
  prognosis, 185
  pseudo-paresis, 186
Alcoholism, 164
  clinical aspects, 165
Alternating insanity, 376, 380
Alumina, 115, 359, 462
Amberg, Emil, 64
Ambra grisea, 115
Amentia, 109
Amnesia, anterograde, retrograde, 70
Anacardium, 115, 146, 337, 476
Anesthesia, 33, 55
  in dementia paralytica, 264
Anomalies of appetite, in insanity, 32, 34
  cranium, in insanity, 24
  dental, in insanity, 29
  ear, in insanity, 30
  eyes, in insanity, 29
  genitalia, in insanity, 31
  genito-urinary function, in insanity, 34
  instinct, in insanity, 34
  jaws, in insanity, 26
  limbs, in insanity, 31
  lips, in insanity, 29
  motor function, in insanity, 33
  nose, in insanity, 27
  sensory function, in insanity, 33
  skin, in insanity, 32
  speech, in insanity, 34
  tongue, in insanity, 29
Anthropophobia, 124
Antimonium crude, 360, 462
Appetite anomalies, 32
Apis mel., 338, 477
Apoplectiform seizures, in dementia paralytica, 272
Argentum nit., 147, 424

Arnica, 116
Arsenicum album, 116, 147, 175, 241, 338, 360, 462, 478
Artemesia vulgaris, 424
Arterial changes, 55
Asafœtida, 147
Asthenopia, neurasthenic, 127
Astigmatism, 33
Asymmetry, facial, 26
Attention, power of, 66
Attention, reflex, 134
Auræ, 408
Auris hœmatoma, 55
Autointoxication,
in dementia præcox, 212
dementia paralytica, 258
Automatism, 233
epileptic, 415

Baptisia, 116, 361, 464
Baths, 333, 358, 446
cold, 457
dripping sheet, 458
hot pack, 457
prolonged hot tub, 455
spinal douche, 457
Baryta carb., 116, 148
Beard, 121
Bearded women, 32
Bed sores, 56, 272, 273
Belladonna, 106, 117, 148, 176, 241, 338, 362, 464, 478
Bell's disease, 97
Bell, Luther B., 249
Berkley, 97, 255, 265, 274
Berwig, Elise, 44
Bingham, 249
Blackburn, 1
Blandford, 281, 282
Blindness, 33
Bones, fragility of, 56
Bouveret, 121
Boyle, 248
Brachycephalic, 26
Brewster, Geo. F., 290
Bromism, 206
Bryant, W. S., 63, 64
Bryonia, 117
Bufo, 148, 425
Burton, 43

Cactus, 363, 465
Calcarea carb., 148, 241, 342, 362, 426, 465, 481
Calmeil, 249
Camphor, 106, 339, 479
Cantharides, 107, 176, 340, 479
Catalepsy, 72
Catatonia, 209
Cedron, 426
Cephalorachidian fluid, 290
Cerebrasthenia, 120
Cerebropathia psychica toxæmia, 91
Chamomilla, 341, 481
Changeableness, 35
Chapin, 251
Chase, Robert H., 249, 261
definition of dementia paralytica, 251
Chemocephalus, 250
China, 363, 241, 467
Christenson, 97
Chronic progressive paranoia, 386
Prodromal hypochrondrical, or period of subjective analysis, 387
symptoms, 387
persecutory stage, 388
symptoms, 388
expansive stage 390
symptoms, 390
Cicuta virosa, 427

Circular insanity, 376, 380
symptoms, 380
etiology, 381
course, 381
Clark, Campbell, 265
Clark, L. P., 241
Classification, 8
Agostini's, 5
Kraepelin's, 6
Ziehen's, 4
Claustrophobia, 124
Clouston, 59, 252, 280, 415, 452
Cocainism, 196
symptomatology, 197
differential diagnosis, 201
prognosis, 201
treatment, 202
Collapse delirium, 97
course, 102
etiology, 97
pathological anatomy, 98
prognosis, 103
symptomatology, 98
treatment, 103
Color fields, in dementia præcox, 246
Combe, Andrew, 2
Committed, when insane should be, 22
Commitment requirements, 21
cost of, 20
forms of, 21
two qualified physicians three years in practice, 14
Concentric limitation of the visual field, 33
Conduct, 76
Confusional insanity, acute, 109
etiology, 109
diagnosis, 113
symptomatology, 109
treatment, 113
Constipation, 54
Convulsions,
in dementia paralytica, 258, 265, 272, 288
syphilitic dementia, 294
Cranial anomalies, 24
Criminals prone to insanity, 37
Cuprum met., 117, 427

Daltonism, 33
Deaf-mutism, 33
Defendorf, 268
Definition of insanity, 2
Deformities of face, 26
jaws, 26
nose, 27
palate, 27
De Fursac, 66, 213, 290, 313
Dehane, 207
Delire du toucher et du doute, 125
Delirium, acute, 97
grave 97
tremens, 167
treatment, 173
Delusion, definition, 59
depressive, 9, 59, 275
expansive, 59, 267
Dementia, from brain abscess, 298
brain tumors, 298
disseminated sclerosis, 298
insolation, 299
traumatism, 298
organic, 292
causes, 292
Syphilitic with paralysis, 292
pathology, 294
prodromata, 293
symptoms, 293
Syphilitic without paralysis, 295
prodromata, 295

symptoms, 295
Dementia paralytica, 248
definition, 251
etiology, 251
history, 248
synonyms, 249
predisposing causes, 252
age, 253
sex, 253
country vs. city, 253
race and social influences, 254
single life, 255
exciting causes, 256
syphilis, 256
alcoholism, 257
autointoxication, 258
nervous strain, 257
sunstroke, 258
sexual excess, 257
traumatism, 258
prodromal stage, 259
duration, 266
physical symptoms, 263
symptomatology, 259
first stage of established disease, 266
symptomatology, 266
delusions of grandeur, 267
micromania, 269
physical symptoms, 269
second stage, 271
bed sores, 272
convulsions, 272
dementia, 272
speech, 271
third stage, 273
symptomatology, 273
demented form, 277
percentage, 279
symptomatology, 277
depressed form, 274
symptomatology, 275
double form, circular type, 274
galloping form, 274
Juvenal paresis, 279
spinal general paresis, 276
symptomatology, 276
duration of dementia paralytica, 282
handwriting, 286, 287, 288
pathology and pathological anatomy, 283
prognosis, 284
remissions, 280
diagnosis from chronic alcoholic insanity, 289
dementia præcox, 240
dementias following epilepsy, 290
lead poisoning, 290
neurasthenia, 134, 285
lumbar puncture in, 290
treatment in, 291
dementia, post apoplectic, 295
embolic, 295
symptoms, 295
thrombotic, 296
symptoms, 296
epileptic seizures in, 297
gangrene in, 297
dementia præcox, 209
etiology, 209
ocular signs in, 241, 242, 243, 244, 245, 246, 247
pathology, 211
somatic disorders, 217
symptomatology, 212
hebephrenic form, 218
course, 225
prognosis, 225

symptomatology, 218
catatonic form, 229
charactristics, 229
stage of depression, 229
symptoms, 229
catatonic stupor, 231
characteristic symptoms, 231
catatonic excitement, 233
characteristics, 233
automatism in, 233
suicidal tendencies, 235
stereotypy in, 235
verbigeration in, 235
physical symptoms, 235
course, 236
prognosis, 236
paranoid forms, 237
of incoherent type, 237
course, 239
symptoms 237
paranoid form, systematized type, 239
course, 239
symptoms, 239
dementia præcox, diagnosis from,
dementia paralytica, 240
manic depressive insanity, 384
paranoia, 240
prognosis, 240
treatment, 240
dementia terminal, 431
agitated form in, 434
symptoms, 434
passive form, 435
symptoms, 435
treatment, 436
Dental anomalies 29
Depression, with flight of ideas, 374
Depression with flight of ideas and emotional elation, 375
Depression with stupor, 355
Depressive excitement, 372
Dercum, 257
dermography, 56
Diathesis insane, causes of, 37
dissipation and excessive sexual indulgence, 44
drunkenness of parents, 43
failure to learn self-control, 44
grief or mental shock acting on mother, 43
imperfect nutrition, 44
improper maternal diet during pregnancy, 44
narcotic habits of ancestors, 44
overtaxing of undeveloped physical powers, 44
traumatism, 44
Diet, 450
Digestive disorders in neurasthenia, 130
Digitalis, 117, 363, 466
Discs, changes in dementia præcox, 242, 244, 246
Dolichocephalus, 26
Double form, attacks of, 375
Dougherty case, 391
Dunn, 280
Dupre, 290

Ear disease, cause of hallucinations, 63
Ear anomalies, 30
Ear disease, psychical importance of, 63
Early paranoia, 393
symptoms, 394
Echolalia, 233
Echopraxia, 233

Egotism, 36
Electricity, 144
Emotional sphere, disorders of, 69
Enteritis mucous, 132
Epileptic automatism, 415
cry 409,
mania, 413
status, 416
stigmata, 418
Epileptic insanity, 404
preparoxysmal stage, 406
symptoms, 407
premonitory stage, 407
symptoms, 408
paroxysmal stage, 409
grand mal, 409
symptoms, 409
petit mal, 411
symptoms, 411
nocturnal epilepsy, 411
psychic equivalents, 412
post-paroxysmal period, 413
automatism, 415
hysteroid attacks, 416
mania, 413
status, 416
interparoxysmal state, 417
stigmata, 418
malingering in, 422
prognosis, 422
treatment, 423
diet, 423
medical, 423
Epileptiform seizures in dementia paralytica, 272
Equivalents psychic, 412
Erlenmeyer, 196
Erotic paranoia, 402
Esquirol, 248
Examination of patient, 10
family history, 10
mental examination, 12
medico-legal cases, 12
patient's history, 10
personal examination, 11
Exhaustion psychoses, 97
nervous, 120
Expansive paranoia, 400
Expression, disturbances of, 74
Eye anomalies, 29
symptoms in dementia præcox, 242, 243, 244, 245, 246, 247

Face, deformities of, 27
in dementia paralytica, 270, 273
Facial asymmetry, 26
Farrar, 82
Farrington, 161
Fere, 418
Fever delirium, 78
course, 81
etiology, 78
forms, 78
pathological anatomy, 79
prognosis, 81
symptomatology, 79
treatment, 81
Flat headedness, 25
Flexibilitas cerea, 72
Flexibility waxy, 72
Forced feeding, 448
Fornias, Edward, 153
Gait in paresis, 270
Gelsemium, 117, 149, 365, 467
General paresis, 249
Genital, anomalies of, 31
General paralysis of the insane, 249
Gray, Lander Carter, 386, 391, 413
Grief cause of defect in offspring, 43
Griesinger, 265
Hallucination, definition of, 62
ear disease, cause of, 63

of feeling, 65
of genital sense, 64
of hearing, 63
of pain sense, 65
permanent, 63
of taste, 64
temporary, 63
thermal sense, 65
of smell, 64
of touch, 65
visual, 64
Hallucinatory insanity, 109
confusion, 109
Hammond, 260
Handwriting in paresis, 286, 287, 288
dementia præcox, 226, 227
Head, narrow forehead with great width behind, 26
of unusual breadth, 26
of unusual length, 26
Heart disturbances, in neurasthenia, 130
Hebephrenia, 209, 218
Hematoma auris, 55
in dementia paralytica, 272
Hemeralopia, 33
Heredity, 38, 121
laws relative to insanity, 39
Hereditary basis, 123
Hunger neurasthenic, 133
Hydrophobia 84
Hydrotherapy, 81, 113, 454
cold baths, 457
dripping sheet, 458
hot pack, 457
prolonged hot tub bath, 455
spinal douche, 457
Hyoscyamus 107, 118, 176, 241, 342, 482
Hyperesthesia, 33
Hyperesthetic, 35
Hypermetrophia, 33

Ideas associated with enfeeblement of higher psychic functions, 66
autochthonous, 67
fixed, 67
flight of, 66
imperative, 67
Ignatia, 149, 365, 241, 467
Illusion acute physcoses in, 62
definition of, 61
of hearing, 62
of muscular sense, 62
of organic sensations, 62
of sight, 61
of smell, 62
of taste, 62
Impotence, 34
Impulses passionate, 73
simple, 73
Impulsiveness, 72
Infection deliria, 82
treatment, 85
Infection psychoses, 78
Influenza delirium of, 84
Insanity,
alcoholic, acute, 167
alternating, 376, 378
arterial changes in, 55
circular, 376, 380
classification, 8
Agostini's, 5
Kraepelin's, 6
Ziehen's, 4
commitment by N. Y. State law, 13
definition, Brower-Bannister, 2
Combe, Andrew, 2

ear disease in, 63
Epileptic, 404
paroxysmal stage, 409
grand mal, 409
periods, 409
symptoms, 409
nocturnal epilepsy, 411
petit mal, 411
symptoms, 411
post-paroxysmal period, 413
symptoms, 413
mania, 413
automatism, 415
hysteroid attacks, 416
interparoxysmal state, 417
premonitory stage, 407
symptoms, 408
preparoxysmal stage, 406
symptoms, 407
psychic equivalents, 412
etiology 24
examination of the insane, 10
forced feeding in, 448
nasal tube, 448
stomach pump, 450
heredity laws of, as they relate to, 39
hydrotherapy in, 454
legal, 3
manic depressive, 320
medical, 2
menstruation in, 54
nutrition, disorders of, in, 53
periodic, 376
querulous, 399
pathology of, 9
pulse in, 57
reflexes in, 55
rest treatment in, 440
sleep disorders of, in, 52
secretions in, 54
speech in, 75
stigmata of degeneration in, 24
anomalies of appetite, 32
ear, 30
eye, 29
genitalia, 31
cranium, 24
skin, 32
teeth, 29
limbs, 31
tongue and lips, 29
asymmetry, facial, 26
deformities of palate, 27
physiological, 33
psychic, 34
symptomatology, 51
temperature in, 57
toxic agents cause of, 50
traumatism, cause of, 45
treatment of, 436
medical, 459
orificial surgery in, 454
trophic changes in, 55, 272
urine in, 54
Insomnia, 126
Intoxication psychoses, 163
Inventive paranoia, 400
symptoms, 401
Iodoform poisoning from, 206
Irregular forms, 383
Irritability abnormal, 65

Jaws malformed, 26
Judgment, disorders of, 71

Jumping pupil, 127

Kahlbaum, 232
Kali carbonica, 150
Kali phosphoricum, 150
Keel shaped head, 25
Knee jerks in dementia paralytica, 276, 288
Kraepelin, 6, 8, 120, 209, 212, 229, 231, 236, 258, 274, 301, 312, 371, 384
Kraft, Ebing, 252, 393, 400
Korsakow's psychosis, 185
Korsakoff's disease, 91, 185
  course, 95
    diagnosis, 95
    etiology, 91
  pathology, 92
  symptomatology, 92
  treatment, 95
Lachesis, 118, 343, 428, 482
Lachrymation, 54
Late paranoia, 395
  symptoms, 396
Laws of heredity, 39
Law of New York State as to commitment of insane, 13
  appeal to Justice of Supreme Court, 19
  costs of appeal, 20
  method of appeal, 19
  examination of two qualified physicians, 14
  judge may dispense with personal service, 15
  personal service, 15
  petition, 15
  hearing before judge, 16
  hearing by referee, 17
Law of sanguinity, 39
Lead poisoning, 207
  pathology, 208
  prognosis, 208
  symptomatology, 208
Legal insanity, 3
Letters dementia præcox, 225, 226
Lewis, 261
Lewis, Bevan, 276
Lilium triginum, 150, 366, 468
Limbs anomalies, 31
Liptocephalus, 25
Lumbar puncture in dementia paralytica, 290
Lycopodium, 151

Macpherson, 273
Macrocephalus, 25
Magnan's sign, 200
Malaria delirium of, 83
Manic, depressive insanity, 320
  etiology 320
  types, 320
    manic type, 321
  hypomania, 323
  symptoms, 323
  physical symptoms, 325
    mania, 325
    course, 329
    symptoms, 325
  delirious mania, 329
    course 331
    duration, 332
    symptoms, 332
    treatment, 332
  depressive states, 350
    simple retardation, 350
      duration, 352
      physical symptoms, 352
      symptoms, 350
    delusional form, 352
      symptoms, 353
    stuporous depression, 355

symptoms, 355
physical symptoms, 356
duration, 357
treatment, 357
mixed types, 371
irascible mania, 371
depressive excitement, 372
unproductive mania, 372
manic stupor, 374
depression with a flight of ideas, 374
depression with flight of ideas, and emotional elation, 375
general course, 376
periodic insanities, 376
recurrent mania, 376
recurrent melancholia, 376
alternating insanity, 376, 380
circular insanity, 376, 380
irregular forms, 376, 383
recurrent mania,
course, 377
prognosis, 378
symptoms, 378
recurrent melancholia,
diagnosis, 380
symptoms, 378
treatment, 380
circular insanity,
course, 381
etiology, 381
symptoms, 380
manic depressive insanity,
diagnosis, 384
from paresis, 384
from involutional melancholia, 384
from dementia præcox, 384
prognosis, 384
treatment, 385
Mania recurrent, 376
course, 377
prognosis, 378
symptoms, 376
Maternal diet during pregnancy, 44
Melancholia, 301
conduct, 309
course and prognosis, 310
etiology, 301
pathological anatomy, 303
physical symptoms, 310
suicidal, 309
symptomatology, 303
diagnosis, 311
from manic depression, 311, 384
dementia præcox, 311
dementia paralytica, 312
prognosis, 312
treatment, 312
Melancholia recurrent, 376
diagnosis, 380
symptoms, 378
treatment, 380
Memory, disorders of, 70
Menstruation, 54, 265, 329
Mercier, 38
Merycism, 34
Michelet, 43
Mickle, Wm. Julius, 249, 257, 258, 262
Microcephalus, 25
Micromania, 269
Migraine, 33
Mixed types, 371
Monophobia, 125
Moral sense, lack of, 36
Morphinism, 189
diagnosis, 195
etiology, 190
prognosis, 195
symptomatology, 191

treatment, 195
Morselli, 249
Moschus, 151
Motor symptoms in thrombotic dementia, 297
Mucous enteritis, 132
Mutism, 34, 231
Myelasthenia, 120
Myopia, 33

Narcotic habits in ancestors, 44
Narrow headedness, 25
Nasal deformities, 27
Nasal tube, 313, 448
method of feeding with, 448
Natrum muriaticum, 366, 469
Negativism, 74, 215, 231
Nervous exhaustion, 120
Neuralgia, 33
Neurasthenia, 120
acute, 120
gastric, 120
genital, 120
hystero, 120
etiology, 121
pathogenesis, 133
symptomatology, 124
differential diagnosis from dementia paralytica, 134
cerebral syphilis, 137
tabes dorsalis, 137
hypochondria, 138
hysteria, 138
melancholia, 138
course and progress, 139
treatment, 139
dietary, 142
hygienic, 141
moral, 140
therapeutic, 143
medical, 144
Neurasthenic hunger, 133
Neurocerevrite, 91
Nocturnal epilepsy, 411
Norman, 280
Nutrition, disorders of, 53, 131
Nux moschata, 367
Nux vomica, 118, 177, 241, 343, 483
Nystagmus, 33

Oblique deformity of head, 25
Ocular signs of dementia præcox, 241, 242, 243, 244, 245, 246, 247
Oedema, 56
Oenanthe crocata, 428
Optic nerve perineuritis of, in dementia præcox, 242
Opium, 429
Orange, Dr., 415
Organic dementia, 292
Orificial surgery, 454
Origmaria paranoia, 393
Oxycephalus, 25

Palate asymmetrical, 28
dome shaped, 27
with Gothic arch, 27
flat-roofed, 27
hip-roofed, 27
with horseshoe arch, 27
torus palatinus, 27
Paranoia, 182, 199, 240, 286
definition, 386
chronic progressive, 386
prodromal, hypochondriacal or period of subjective analysis, 387
symptoms, 387
persecutory stage, 388
symptoms, 388
expansive stage, 390

symptoms, 390
origmaria or early form, 393
symptoms, 393
tardiva or late form, 395
symptoms, 396
persecutory, 396
course, 398
symptoms, 396
sexual, 398
querulous insanity, 399
course, 400
symptoms, 399
inventive or reformative, 401
symptoms, 401
religious, 401
symptoms, 402
erotic, 402
pathology, 403
prognosis, 403
treatment, 403
Paranoia alcoholic, 182
dissociativa, 109
like delirium, 200
Paranoid forms, 209
Paresis, 249
diagnosis from manic depressive insanity, 384
Paresthesias, 55, 264
Pathology, 9
Pathological susceptibility, 231, 232
Pathophobia, 125
Periodic insanities, 376
Persecutory paranoia, 396
Personal services, 15
Perspiration, 54
Peterson, 3, 33, 41, 65, 256, 283, 390
Petition, 15
Phosphorus, 151, 177, 344, 484
Phosphoric acid, 241, 368, 370
Phrenomania, 97
Physiological stigmata, 33
Picric acid, 151, 241
Piltz, 217
Plagiocephalus, 25
Platina, 345, 484
Plumbum, 429
Prenatal influence, 41
Pressure of activity, 373
Protection sheet, 447
Psychic equivalents, 412
Psychic stigmata, 34
Psychoses, alcoholic, 166
infection, 78
post-febrile infection, 86
treatment, 89
exhaustion, 97
involutional, 300
intoxication, 163
polyneuritic, 91
Puberty, retardation of, 34
Pulsatilla, 152, 367, 470
Pupils, 127, 134
jumping, 127
in dementia paralytica, 265, 269, 270
Pulse, 57

Querulous insanity, 399
course, 400
symptoms, 399
Querulanten whansinn, 399
Quinine, 207

Raymond, 280
Reactions automatic, 72
negative, 72
positive, 72
Recurrent mania, 376
Recurrent melancholia, 376
Referee, hearing by, 17
Reflexes, 55, 130, 225, 245, 265, 288
Reformative paranoia, 400
symptoms, 401

Regis, 252, 253, 254
Religious paranoia, 401
symptoms, 402
Rhus tox., 152

Sanguinity, law of, 39
Salivation, 54
Sankey, 267, 268
Scaphocephalus, 25
Secretions, disorders of, 54
Self-preservation, loss of, 70
Senile dementia, 313
pathological anatomy, 318
symptoms, 314
treatment, 319
Senile satyriasis, 316
Sense, moral and ethical, loss of, 69
Sensory symptoms, 58
Sepia, 152, 368, 369, 471
Sexual irritability, 34
Sexual instinct exalted, lost, perverted, 70
Sexual paranoia, 398
Shock, cause of defect in offspring, 43
Silica, 429
Skin anomalies, 32
Sleep, disorders of, 52, 53
Small-pox, initial delirium of, 82
prognosis, 83
Snout cramp, 232
Speech, 75
in alcoholic insanity, 389
catatonic, 75
defective, 34
in melancholia, 75
of paretic, 75, 263, 269, 273, 288
in syphilitic insanity, 289
Spigelia, 152
Spinal asthenia, 120
Spitzka, 41, 255, 269, 317
Spongia, 153, 345, 485
Stammering, 34
Staphysagria, 241
Stearns, 263
Steeple-shaped skull, 25
Stereotypy, 73, 215, 231, 232, 235
Sterility, 34
Stigmata of degeneration, 24
in dementia præcox, 211
physical in epilepsy, 418
Stomach pump, 450
Stramonium, 108, 119, 153, 177, 241, 347, 486
Stuttering, 34, 130
Suggestibility, 72
Sulphur, 241, 369, 430, 471
Symptomatology, 51
Syphilis cerebral differentiated from neurasthenia, 137
Syphilitic insanity, 289
eye paralysis in, 289
motor symptoms in, 289
speech in, 289
tremor in, 289

Tabes dorsalis differentiated from neurasthenia, 137
Tarantula hispania, 488
Tardiva paranoia, 395
symptoms, 395
Temperature, 57
Terminal dementia, 431
neurons in, 432
agitated form, 434
symptoms, 434
passive form, 435
symptoms, 435
physiognomy in, 433
signs of mental weakness, 432
treatment, 436
Thompson, 37